

## ORDINANCE NO. 786

**AN ORDINANCE ADOPTING THE SCAPPOOSE INDUSTRIAL AIRPARK SEPTEMBER 2004 AIRPORT MASTER PLAN (AS AMENDED AUGUST 9, 2006); AMENDING SCAPPOOSE MUNICIPAL ORDINANCE 658 AND THE SCAPPOOSE TRANSPORTATION SYSTEM PLAN; AMENDING THE GOALS FOR TRANSPORTATION, AMENDING POLICIES FOR TRANSPORTATION 11, AND ADDING AN APPENDIX TO THE SCAPPOOSE COMPREHENSIVE PLAN; AND AMENDING SCAPPOOSE MUNICIPAL CODE CHAPTER 17.69 (PUA PUBLIC USE AIRPORT) AND 17.88 (AO PUBLIC USE AIRPORT SAFETY AND COMPATIBILITY OVERLAY ZONE).**

### THE CITY OF SCAPPOOSE ORDAINS AS FOLLOWS:

**Section 1.** The Scappoose Industrial Airpark Airport Master Plan dated September 2004 (as amended August 9, 2006), a copy of which is attached hereto or on file with the City Recorder, is hereby adopted.

**Section 2.** The Scappoose Transportation System Plan dated October 1997, and adopted by Scappoose Municipal Ordinance 658, a copy of which is attached hereto or on file with the City Recorder, is hereby amended to read as follows:

(Language to be omitted is ~~strikethrough~~, proposed language additions are in ***bold italics***):

Page ii, Section Heading APPENDICES, Appendix F: "***SEPTEMBER 2004 AIRPORT*** SCAPPOOSE INDUSTRIAL AIRPARK MASTER PLAN AND UPDATES (***AS AMENDED AUGUST 9, 2006***)."

Page 69, Section Heading AIR SERVICE, The second paragraph shall be amended to read: "The Scappoose Industrial Airpark is governed by the ~~1991 Scappoose Industrial Airpark Master Plan and subsequent updates~~ ***2004 Scappoose Industrial Airpark Airport Master Plan (as amended August 9, 2006)*** included as Appendix F attached hereto and incorporated herein."

Appendix F (Scappoose Industrial Airpark Master Plan Report, April 1991) shall be deleted and replaced by the 2004 Scappoose Industrial Airpark Airport Master Plan (as amended August 9, 2006).



**Section 3.** The Scappoose Comprehensive Plan is amended as follows:

(Language to be omitted is ~~strikethrough~~, proposed language additions are in **bold italics**):

GOAL FOR TRANSPORTATION

[...]

**13) Work with the Port of St. Helens to maintain the continuing viability of the Scappoose Industrial Airpark.**

POLICIES FOR TRANSPORTATION

[...]

**11) Work with the Port of St. Helens on their plans for the Scappoose Airport Industrial Airpark, as well as for industrial development and transportation. Apply appropriate zoning designations to ensure that land identified for airport use in the 2004 Scappoose Industrial Airpark Airport Master Plan (as amended August 9, 2006) is utilized for airport-related development.**

APPENDICES

The 2004 Scappoose Industrial Airpark Airport Master Plan (as amended August 9, 2006) shall be included as a new Appendix H to the Scappoose Comprehensive Plan.

**Section 4.** Chapter 17.69 (PUA Public Use Airport) of the Scappoose Municipal Code is amended as follows:

(Language to be omitted is ~~strikethrough~~, proposed language additions are in **bold italics**)

17.69.030 Definitions.

[...]

B. "Airport sponsor" is the owner, manager, person or entity designated to represent the interests of an airport. **For the Scappoose Industrial Airpark, the airport sponsor is the Port of St. Helens.**

17.69.070 Dimensional requirements and development standards.

[...]

D. Uses shall be developed and located in a manner consistent with the most recent federally approved airport layout plan, **the 2004 Scappoose Industrial Airpark Airport Master Plan (as amended August 9, 2006).**





**Section 5.** Chapter 17.88 (AO Public Use Airport Safety and Compatibility Overlay Zone) of the Scappoose Municipal Code is amended as follows:

(Language to be omitted is ~~strikethrough~~, proposed language additions are in ***bold italics***)

17.88.020 Definitions.

[...]

"Airport sponsor" means the owner, manager, or other person or entity designated to represent the interests of an airport. ***For the Scappoose Industrial Airpark, the airport sponsor is the Port of St. Helens.***

[...]

17.88.030 Imaginary surface and noise impact boundary delineation. The airport elevation, the airport noise impact boundary, the airport direct impact boundary, the airport secondary impact boundary, and the location and dimensions of the runway, primary surface, runway protection zone, approach surface, horizontal surface, conical surface and transitional surface shall be delineated for the Scappoose Industrial Airpark and shall be made part of the Official Zoning Map. ***The imaginary surfaces and the noise impact boundary are illustrated in the 2004 Scappoose Industrial Airpark Airport Master Plan (as amended August 9, 2006).*** All lands, waters and airspace, or portions thereof, that are located within these boundaries or surfaces, and are located within the city limits, shall be subject to the requirements of this overlay zone.


**Section 6.** The City of Scappoose adopts the recommendation of the Scappoose Planning Commission and the consideration of applicable statutes, rules, comprehensive plan provisions and implementing ordinances in the staff report dated October 27, 2006.

**PASSED AND ADOPTED** by the City Council this 20<sup>th</sup> day of November, 2006, and signed by me in authentication of its passage.

**CITY OF SCAPPOOSE, OREGON**

  
Glenn E. Dorschler, Mayor

First Reading: November 6, 2006  
Second Reading: November 20, 2006

Attest:   
Susan Pentecost, City Recorder



# SCAPPOOSE

## INDUSTRIAL AIRPARK



PORT OF ST. HELENS



# Airport Master Plan

**AIRPARK MASTER PLAN UPDATE**

**for**

**SCAPPOOSE INDUSTRIAL AIRPARK  
Scappoose, Oregon**

**Prepared For The  
PORT OF ST. HELENS**

**By  
W&H PACIFIC  
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**In Association With  
COFFMAN ASSOCIATES, INC.  
237 N.W. Blue Parkway, Suite 100  
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**September 2004**



PORT OF  
ST. HELENS

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- B. AIRPORT COMPLIANCE**
- C. FAA COMMENTS**



PORT OF  
ST. HELENS

Chapter One  
**INVENTORY**

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PORT OF  
ST. HELENS

# INVENTORY

## INTRODUCTION

The first part of the master planning effort is to update the inventory. The inventory chapter will summarize economic and population changes around the airport, as well as the airport facilities, and operations information. By establishing a thorough and accurate inventory, an appropriate forecast, financial plan and airfield and landside development can be determined.

## LOCATION AND GEOGRAPHY

Scappoose Industrial Airpark is located in the City of Scappoose, Oregon in Columbia County. The City is located along Highway 30 in the northwest corner of Oregon, 20 miles from

downtown Portland. The eastern edge of the City borders the Multnomah Channel with rolling hills and the river valley, while the western edge is bordered by forested hillsides. The City is 42 feet above sea level. See **Exhibit 1A** for a location map.

The City's average annual low temperature is 39 degrees F and the average annual high temperature is 68.4 degrees F. The area receives approximately 60 inches of rain per year over approximately 152 days.

## LOCAL HISTORY AND COMMUNITY PROFILE

The City of Scappoose was originally inhabited by the Chinook Indians and



became a hub for traders in the 1700s. Over the years, Scappoose has offered many occupations from logging to dairy farming to gravel mining. Now, many of Scappoose's residents make their living through lumber, mining, retail trade, and manufacturing. The City's five largest employers are Scappoose School District, Fred Meyer, Taylormade Products, Inc., West Coast Shoe Company, and OS Systems. It is also common for City of Scappoose residents to commute to the Portland/Hillsboro area for work.

The median household income in Scappoose is \$55,500. The median age of the City residents is 45.1 years.

## ***POPULATION AND ECONOMIC GROWTH***

The City of Scappoose currently has a population of 5200 people. The City has experienced an average annual growth rate of 3.5 percent over the past decade. Population increases over the last 20 years are shown in **Table 1A, Population**. The City is planning for a future of growth, based on its variety of recreational opportunities and rich history. The Scappoose Business Development Committee is in the process of developing a "Town Center Master Plan" to enhance and guide the City's growth.

## ***ACCESS TO THE AIRPORT***

Airport access is gained from Highway 30 onto either Columbia Avenue or West Lane Road. Signs direct drivers

to the roads leading to the various areas of the airport.

**Table 1A, Population**

	1980	1990	1998	2001
City of Scappoose	3,213	3,529	4,855	5,160
Columbia County	35,646	37,557	42,300	44,300

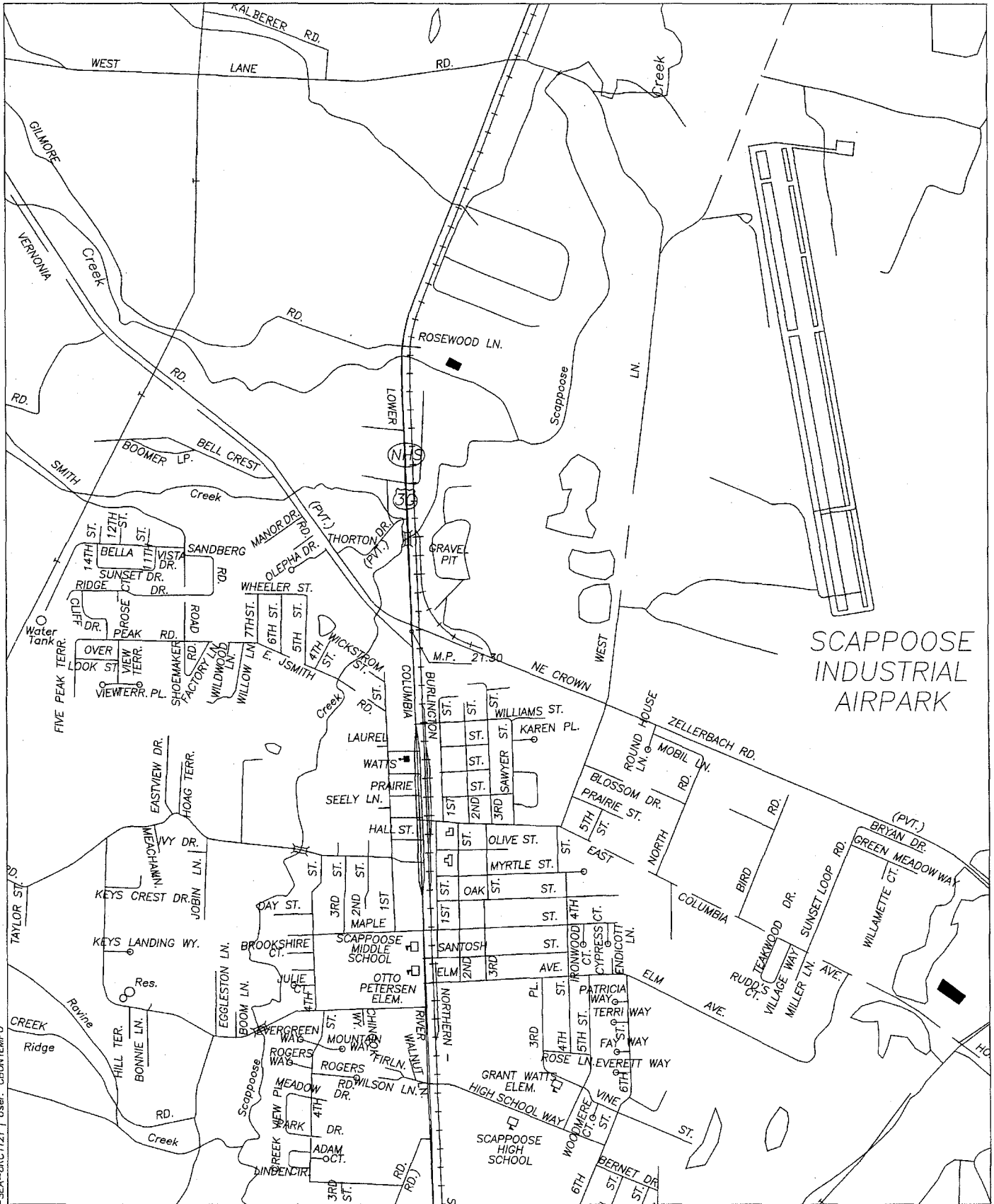
Taxi services, both scheduled and on-call, are available. Greyhound operates regional and interstate bus service from Highway 30. Portland Western Railroad passes through the City of Scappoose along Highway 30 providing freight service. Nearby St. Helens and Warren have marinas for small boats and deepwater shipping operates through the nearby Columbia River Channel.

## ***AIRPORT ADMINISTRATION***

The airport is owned and operated by the Port of St. Helens.

## ***AIRPORT ROLE***

Historically, the airport has been primarily a base for local recreational users. With increased growth in the northwest corner of Oregon, and other nearby airports getting busier, Scappoose has begun to attract more itinerant and local aircraft from the surrounding areas. Scappoose is currently the second busiest airport without an air traffic control tower in the state of Oregon and continues to grow.



SCAPPOOSE INDUSTRIAL AIRPARK

Office: SEATTLE / System: WHP-SEA-BRCY121 / User: CRONTEMPO

DESIGNED BY:	LAM	CHECKED BY:			
DRAWN BY:	CMB	APPROVED BY:			
LAST EDIT:	02/20/03	PLOT DATE:	08/27/04		
DATE	BY	REV#	REVISION	CK'D	APPR



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**PORT OF ST. HELENS  
SCAPPOOSE INDUSTRIAL AIRPART  
LOCATION MAP  
EXHIBIT 1A**

OREGON

SCALE: N.T.S	PROJECT NO. 30398	DRAWING FILE NAME: EXHIBIT-1A.DWG	<b>1A</b> SHEET
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The State Aviation System Plan has identified Scappoose Industrial Airpark as a Category 2 airport. This means the airport is a business or high activity general aviation airport with over 30,000 operations per year and at least 500 turbine aircraft operations.

Scappoose Industrial Airpark is one of only three airports within a 30 nautical mile radius of the City of Scappoose that offers a runway over 5000 feet in length. This makes this airport ideal for many turbine aircraft and enhances the airport's role as a major local airport in the Portland Metropolitan Area for general aviation.

## **AIRPORT FACILITIES**

### **RUNWAYS**

Scappoose Industrial Airpark has one runway. Runway 15-33 is 5,100 feet by 100 feet, as depicted on **Exhibit 1B**.

The runway was originally built in 1943 at a length of 4000 feet. The runway was extended 1100 feet in 2000. The surface is asphalt concrete and its strength is 30,000 lbs. for single gear aircraft, 50,000 lbs. for dual gear aircraft and 90,000 lbs. for dual tandem gear aircraft. The original pavement section was 2 inches of asphalt concrete, 6-inches of base course and 12-inches of subbase course. The original runway pavement was overlaid with 2.5-inches in 2000. The runway extension, constructed in 2000, has a pavement section of 3 inches of asphalt concrete, 4.5 inches of base course and 7 inches of asphalt concrete

millings as subbase course. The runway pavement is in excellent condition. The runway also has a rubberized friction slurry seal coat. Details on the pavement sections and condition are shown in **Exhibits 1C and 1D**.

### **TAXIWAYS AND TAXILANES**

There are two main parallel taxiways, one on either side of the runway. Taxiway A is located on the east side of the airport and Taxiway B is on the west side. There are five to six connector taxiways on each side of the runway. The taxiways all have an asphalt concrete surface course and are generally in very good to excellent condition. The exception to this is Taxiway B4, with pavement only in fair condition.

Taxilanes throughout the airport are also constructed with asphalt concrete surface course. For detailed information on the pavement sections and conditions of the taxiways and taxilanes see **Exhibits 1C and 1D**.

### **APRONS AND AIRCRAFT PARKING**

There are two areas on the airport where aircraft tiedowns are provided. On the east side of the airport, adjacent to the parallel taxiway are 10 tiedowns. An apron on the west side of the airfield, approximately 440 feet by 325 feet, contains 30 tiedowns. Additional tie-downs also exist on this apron, but the striping has been removed to allow for vehicle parking spaces.

A building of shed hangars with 5 aircraft bays, located in the northeast corner of the airport, is planned for removal in the near future. Other leasable hangars on the airport include 100 T-hangars in 10 buildings on the west side of the airport. The east side of the airport also has 15 T-hangars and one large, single unit

hangar. Tiedown, hangar and land lease fees are shown in **Table 1B** below. Other buildings on the airport are owned by a combination of Fixed Base Operators (FBO's). For detailed information on the hangars and buildings at the airport see **Exhibit 1B, Existing Facilities**.

**Table 1B, Airport Rates and Fees**

	<b>Cost Per Month</b>
Open Hangar Building	\$60.00
East Side Ten Unit Hangar Building	\$100.00
East Side Five Unit Hangar Building	\$113.00
West Side Interior Hangars	\$127.00
West Side End Hangars	\$150.00
West Side Interior Hangars – Building W-9	\$150.00
West Side End Hangars – Building W-9	\$170.00
West Side Interior Hangars – Building W-10	\$165.00
West Side End Hangars – Building W-10	\$185.00
Tie-Down	\$21.00
Land Lease	\$0.015 per sf and \$0.18 per sf per year

## ***LANDSIDE FACILITIES***

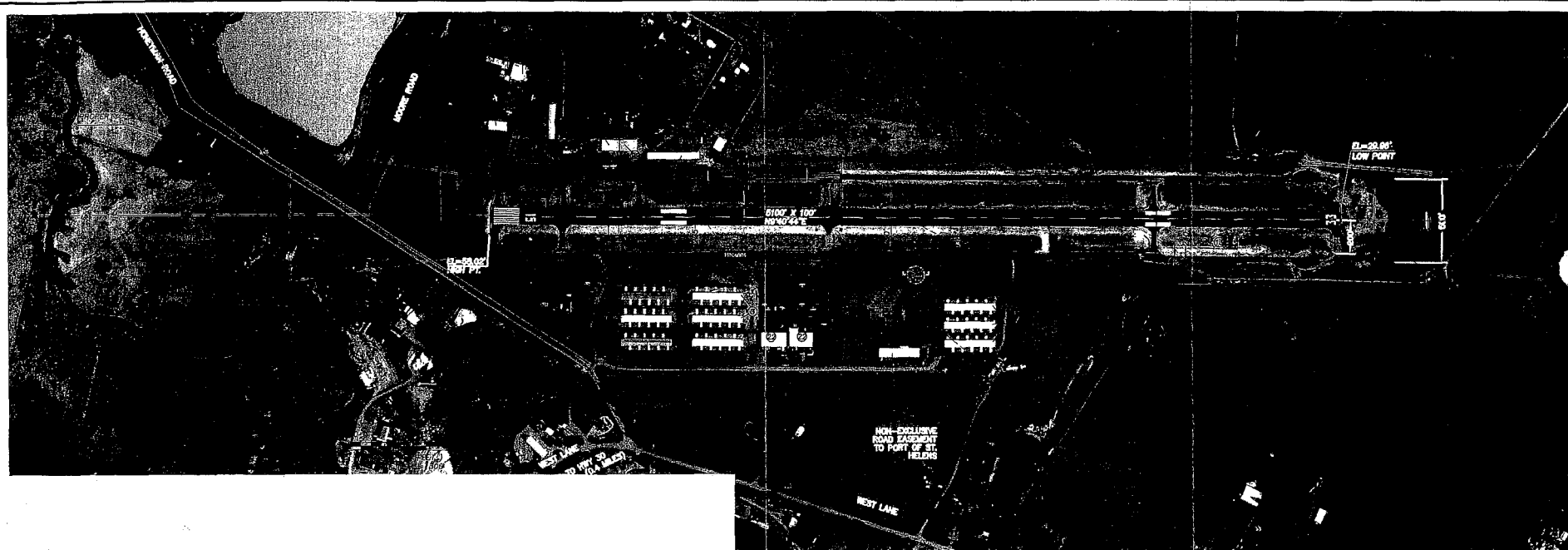
### **FIXED BASE OPERATORS**

The primary FBO at Scappoose Industrial Airpark is Transwestern Aviation. Other FBO's include Sherpa Aircraft Manufacturing, Sport Copter, Inc., Oregon Aero, Composites Unlimited, Inc., and the Northwest Antique Airplane Club. Oregon Aero manufactures helmets and aircraft seats. Sport Copter creates kits for experimental helicopters. Sherpa also develops kit aircraft. Composites Unlimited manufactures composite components for aircraft. Transwestern Aviation operates the fueling facilities at the airport.

Transwestern Aviation, Inc. operates a through-the fence operation at Scappoose Industrial Airpark. Their facilities are on the east side of the airport. They provide aircraft fueling services.

### **INTERNAL CIRCULATION, ACCESS AND PARKING**

Vehicle and pedestrian access to the airfield is generally limited by a number of fences around the airport, though portions of the east side of the airport do not have fencing. Vehicular traffic must get around the airport via the taxiways and aprons. Otherwise, access to the west side of the airport



**NOTES**

[A] Existing coordinate data from National Ocean Service Obstruction for Scappoose Industrial Airport (Nov. 1994). Future coordinates calculated from existing. Horizontal Datum NAD 83 Vertical Datum NGVD 88

[B] A topographic survey has not been performed. Brass cap set in concrete.

[C] Power supplied to airport by Columbia River P.U.D.

[D] Sources: FAA Airport Master Record (Form 5010).

[E] Clear slope measured on Part 77 approach surface. Road clearance will not require a threshold displacement if approach minimums are 1.0 mile or greater.

[F] No wind data is available. Wind is noted as generally following runway alignment. Northerly and southerly winds occur with approximately equal frequency.

[G] Currently used for helicopter parking.

[H] Airport perimeter to be fenced.

[I] Protected from 100-year flood by levee; subject to possible failure or overlapping during large flood (source: FEMA map).

[J] Deviations from FAA standards:  
Some hold lines and runway-to-taxiway separation on west side are 15 feet less than 240' standards for a B-II runway.

**BUILDING & FACILITIES LEGEND**

1	FBO Hangar/Office
2	Other FBO Building
3	T-Hangar Buildings
4	Shed Hangars (To Be Removed)
5	County Park
6	Fuel Island
7	Paved Aircraft Apron
8	Turf Aircraft Parking Area
9	Residences/Garage
10	Mobile Home (To Be Removed)
11	Auto Parking
12	Wind Cone/Segmented Circle
13	Precision Approach Path Indicator
14	Form Buildings & Residences
15	Storage Shed
16	FBO - Private Property
17	T-Hangar Building/Area
18	Electrical Building
19	Localizer Antenna
20	Automated Surface Observing System
21	Rotating Beacon On Tower
22	Other Commercial Building
23	Shed Hangar Privately Owned

**RUNWAY DATA**

AIRPORT REFERENCE CODE (CRITICAL AIRCRAFT ARC)		15	33
CRITICAL AIRCRAFT		Small Business Jet	
PHYSICAL LENGTH AND WIDTH		5,100' x 100'	
EFFECTIVE GRADIENT / MAX. GRADE		0.56%/0.86%	
PAVEMENT TYPE		ASPHALIC CONCRETE	
PAVEMENT STRENGTH		SW - 30,000 LBS DW - 50,000 LBS [B]	
RUNWAY SAFETY AREA DIMENSIONS		5,700' x 150'	
RUNWAY OBJECT FREE AREA		5,700' x 500'	
RUNWAY OBJECT FREE ZONE		5,500' x 400'	
APPROACH VISIBILITY MINIMUMS		Greater Than 1 Mile	
APPROACH TYPE		15	Nonprecision
		33	Visual
		15	341/17:1
		33	20:1/50:1
APPROACH SLOPE: REQUIRED/CLEAR		15	HEL/PAPI/LOC/DME
		33	PAPI
APPROACH AND LANDING AIDS		15	Latitude N45°46'40.41"
		33	Longitude W122°51'49.65"
RUNWAY END COORDINATES		15	Latitude N45°45'51.05"
SEE NOTE [A]		33	Longitude W122°51'35.49"
RUNWAY LIGHTING		MRL	
LINE OF SIGHT		5,100'	
RUNWAY MARKING		Nonprecision	
WIND COVERAGE		[F]	

**DRAWING LEGEND**

DESCRIPTION	
AIRPORT PROPERTY	---
LEASE OR RIGHT-OF-WAY LINE	---
AVIGATION EASEMENT	---
PAVEMENT (ASPHALT)	---
PAVEMENT TO BE REMOVED	---
ON-AIRPORT BUILDING	---
BUILDING RESTRICTION LINE	BRL
RUNWAY SAFETY AREA	BSA
RWY OBSTACLE FREE ZONE	OZF
RWY PROTECTION ZONE	OPZ
OBJECT FREE AREA	OFA
TAXIWAY HOLDLINE	---
CONTOURS	35
SURVEY MONUMENT [C]	.
VEHICLE GATE	1
AIRPORT FENCE	---

**DECLARED DISTANCES TABLE**

	15	33
Take-Off Run Available (TORA)	5100	5100
Take Off Distance Av. (TODA)	5100	5100
Accelerate Stop Distance Av. (ASDA)	5100	5100
Landing Distance Av. (LDA)	5100	5100

**AIRPORT DATA**

AIRPORT ELEVATION (Feet above MSL)	58.02'
AIRPORT REFERENCE POINT [A]	Latitude N45°46'15.73"
	Longitude W122°51'42.57"
MEAN MAX. TEMP (Hottest month)	82'
COMBINED WIND COVERAGE	VFR [F] IFR [F]
AIRPORT REFERENCE CODE	B-II
AIRPORT SERVICE LEVEL (NPAS)	GENERAL AVIATION
TAXIWAY LIGHTING	REFLECTORS
TAXIWAY MARKING	YES
AIRPORT & TERMINAL HAWAIDS	LOC/DME/PAPI

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**PORT OF ST. HELENS  
 SCAPPOOSE INDUSTRIAL AIRPARK  
 EXISTING FACILITIES  
 EXHIBIT 1B**

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 PROJECT NO. 30398  
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 SHEET 1B

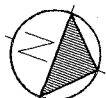
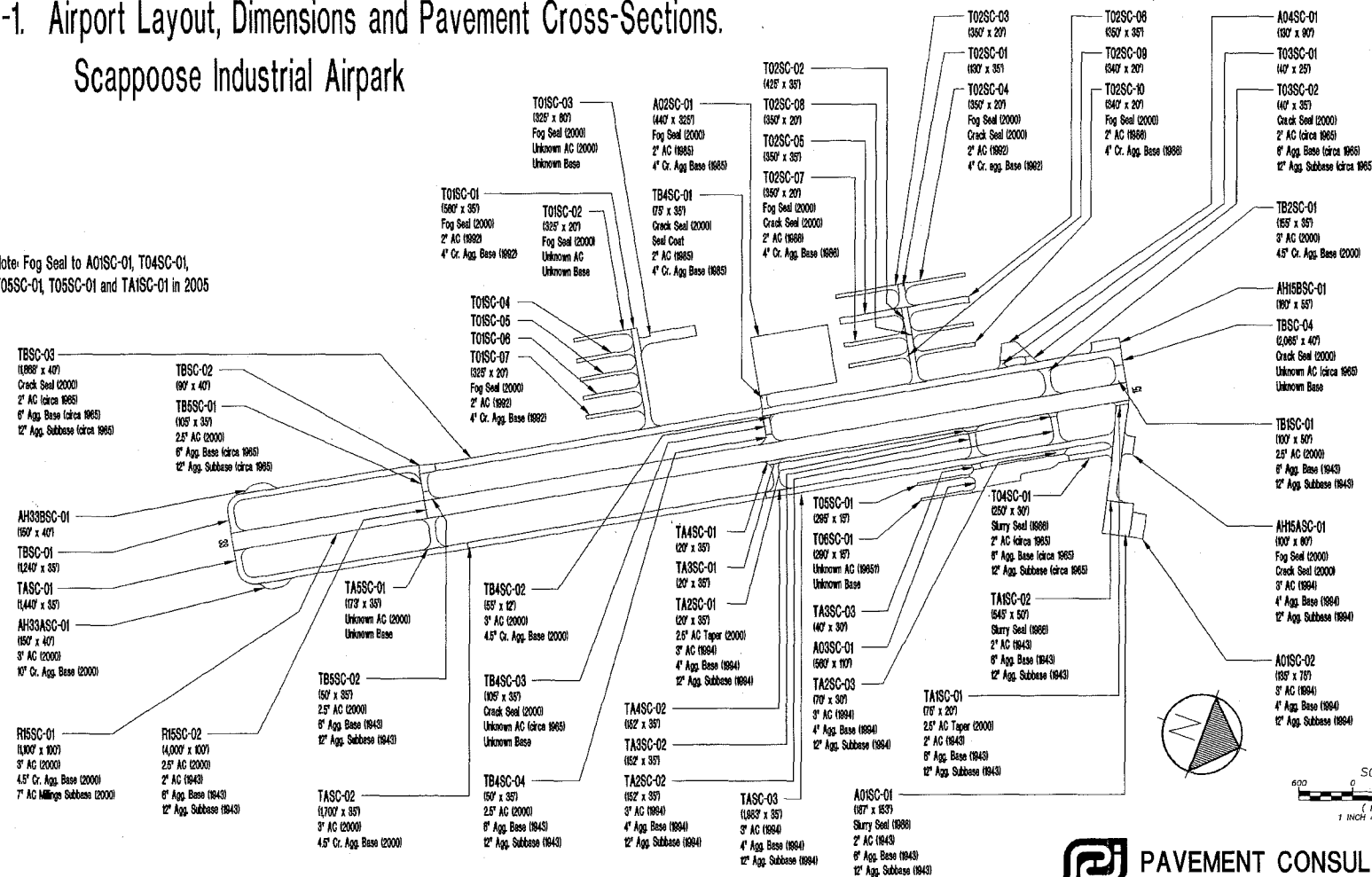
04/02/2011 8:42 AM RUNWAY EXTENSION AUTO CAD V.P. ASHAP/PLD/IMG



DWG INDEX: SCAPSOE 2005

# Figure SC-1. Airport Layout, Dimensions and Pavement Cross-Sections. Scappoose Industrial Airpark

Note: Fog Seal to AO1SC-01, TO4SC-01,  
TO5SC-01, TO5SC-01 and TA1SC-01 in 2005



SCALE  
0 300 600 1200  
( FEET )  
1 INCH = 600 FT

**PAVEMENT CONSULTANTS INC.**

Office: SEATTLE | System: WHP-SEA-BR01214 | User: CRNTEMP

DESIGNED BY:	CMB	CHECKED BY:	LAM
DRAWN BY:	CMB	APPROVED BY:	
LAST EDIT:	02/20/03	PLOT DATE:	03/11/03
DATE	BY	REV	REVISION
			OK/DAPPK

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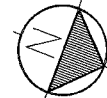
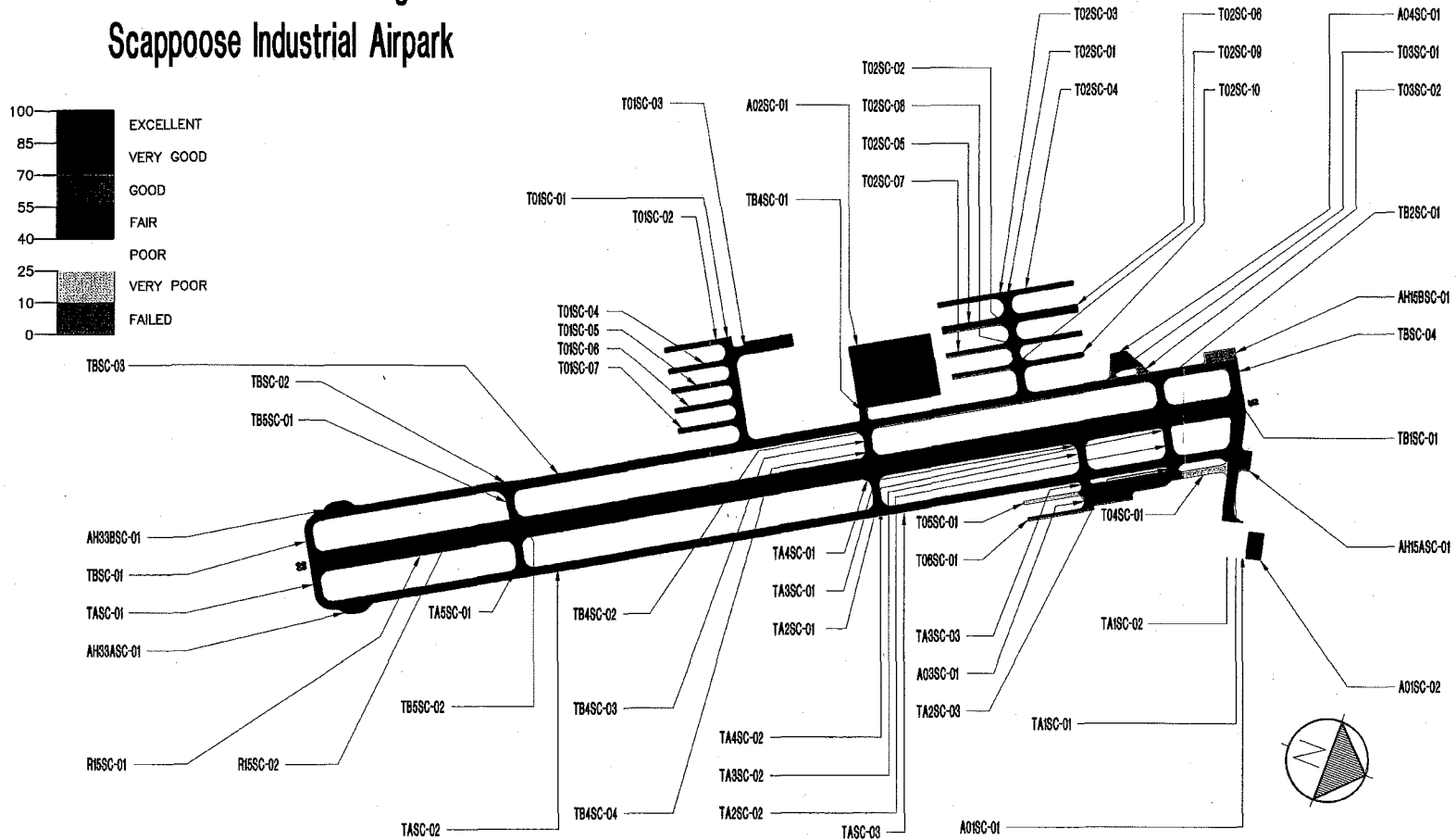
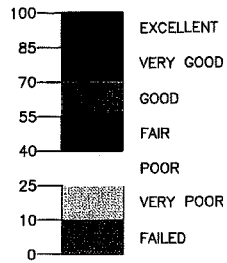
PORT OF ST. HELENS  
SCAPPOOSE INDUSTRIAL AIRPARK  
**AIRPORT LAYOUT, DIMENSIONS, AND  
PAVEMENT CROSS SECTIONS**

SCAPPOOSE OREGON

SCALE: 1" = 600' PROJECT NO. 30398 DRAWING FILE NAME: EXHIBIT-1C 1C SHEET

# Figure SC-3. Pavement Condition in August 2001.

## Scappoose Industrial Airpark



**PAVEMENT CONSULTANTS INC.**

DESIGNED BY:	CHECKED BY: LAM				
DRAWN BY: CMB	APPROVED BY:				
LAST EDIT: 02/20/03	PLOT DATE: 08/27/04				
DATE	BY	REV	REVISION	CK'D	APP'R

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PORT OF ST. HELENS  
 SCAPPOOSE INDUSTRIAL AIRPARK  
**PAVEMENT CONDITIONS  
 IN AUGUST 2001**

SCAPPOOSE	PROJECT NO. 30398	DRAWING FILE NAME: EXHIBIT-1D	OREGON
SCALE: 1"=600'			1D SHEET

C:\paw\scap\scap.dwg User: gshelton

can be obtained through the perimeter roads. There is no perimeter roadway access to the southern two-thirds of the airport on the east side or to the southern half of the airport on the west side.

Parking is provided adjacent to the buildings occupied by the airport tenants. A total of 146 vehicle parking spaces are available throughout the airport.

### **AIRFIELD SUPPORT FACILITIES**

#### **SECURITY FENCING AND GATES**

The airport is almost completely surrounded by fencing with vehicle access gates. The exception is that the majority of the east side of the airport is currently without fencing. The airport is waiting to purchase additional property on the east side before the fence is completed. The fencing is 6 foot chain link with three-strands of barbed wire, except for portions of the north and east side fencing that are three strands of barbed wire on metal posts. There are two vehicle access gates, one on the west side of the airport and one on the east. A third access gate is planned on the east side of the airport near the south end of the runway.

#### **AIRCRAFT RESCUE AND FIREFIGHTING (ARFF)**

All Aircraft Rescue and Firefighting services for the Scappoose Industrial Airpark are provided by the City of

Scappoose through the Scappoose Rural Fire Protection District. The firehouse is approximately 2 miles from the airport.

### **FUELING FACILITIES**

Transwestern Aviation operates the public fueling facility. 100 low lead (100LL) and jet A fuels are available at the airport.

### **AIRPORT MAINTENANCE**

The Port of St. Helens performs airport maintenance. No maintenance facility is located on the airport property.

### **UTILITIES**

Utilities serving the airport are the Columbia River PUD (electricity), City of Scappoose (water) west side of the airport, and Century Tel (telephone). Airport buildings have on-site septic systems and water is also available on the east side from a well on site. Natural gas is not available at the airport and service is not planned.

### **NAVAIDS**

Airport Navigational Aids, or NAVAIDS, provide electronic navigational assistance to aircraft for approaches to an airport. The Scappoose Industrial Airpark is equipped with one specific NAVAID and uses another from another nearby airport. Approximately 11.4 miles from the air-

port, located at the Battleground Airport, is a Very High Frequency Om-nirange (VOR). The VOR provides a nonprecision circling approach to Scappoose Industrial Airpark by direc-tional guidance through an estab-lished frequency of 116.60 MHz. Re-quired visibility is a minimum of 1-mile visibility. A GPS overlay is also provided with the VOR approach pro-cedure. Runway 15 has a Localizer (LOC) and Distance Measuring Equipment (DME), which provide guidance for alignment and descent through the use of antennas on the ground transmitting to a receiver an-tenna on the aircraft. This approach procedure is a straight-in nonprecision approach with 1-mile visibility mini-mums. See **Exhibits 1E and 1F, In-strument Approach Procedures.**

Scappoose Industrial Airpark has an Automated Surface Observing System (ASOS) from which the pilots can gain current airport information, such as ambient temperature, wind and visi-bility. The ASOS is located in the southwest corner of the airport prop-erty. The ASOS information is avail-able through a frequency of 135.875 MHz or by calling (503) 543-6401.

### ***LIGHTING AND SIGNING***

Runway 15-33 is equipped with Me-dium Intensity Runway Lighting (MIRL). Runway 15 is equipped with Runway End Identifier Lights (REILs), which are flashing lights on either side of the runway threshold that help to delineate the end of the runway.

A Precision Approach Path Indicator (PAPI) is available on both Runway 15 and Runway 33. PAPIs provide ap-proach path guidance with a series of light units. The four-unit PAPIs at Scappoose Industrial Airpark give pi-lots an indication of whether their ap-proach is too low, slightly low, too high, slightly high, or path through the pattern of red and white given by the light units.

Scappoose Industrial Airpark cur-rently has no approach lighting sys-tems. A rotating beacon is located on a tower on the east side of the airport. The beacon delineates airport location through the use of 180-degree alter-nating white and green lights.

The parallel and connector taxiways are equipped with centerline reflec-tors. There is no edge lighting on the taxiways.

Signing at the airport consists of lighted hold signs.

## ***AIR TRAFFIC ACTIVITY***

### **BASED AIRCRAFT AND OPERATIONS**

Based aircraft at the airport have in-creased, in the past ten years by ap-proximately 30 percent. In 1992, the airport had 106 based aircraft. There are currently 140 based aircraft at the airport. The majority of the aircraft based at the airport are single engine aircraft, with some multi-engine air-craft, ultra-lights, gyrocopters and a jet. See **Table 1C** below for a break-down of the current based aircraft.

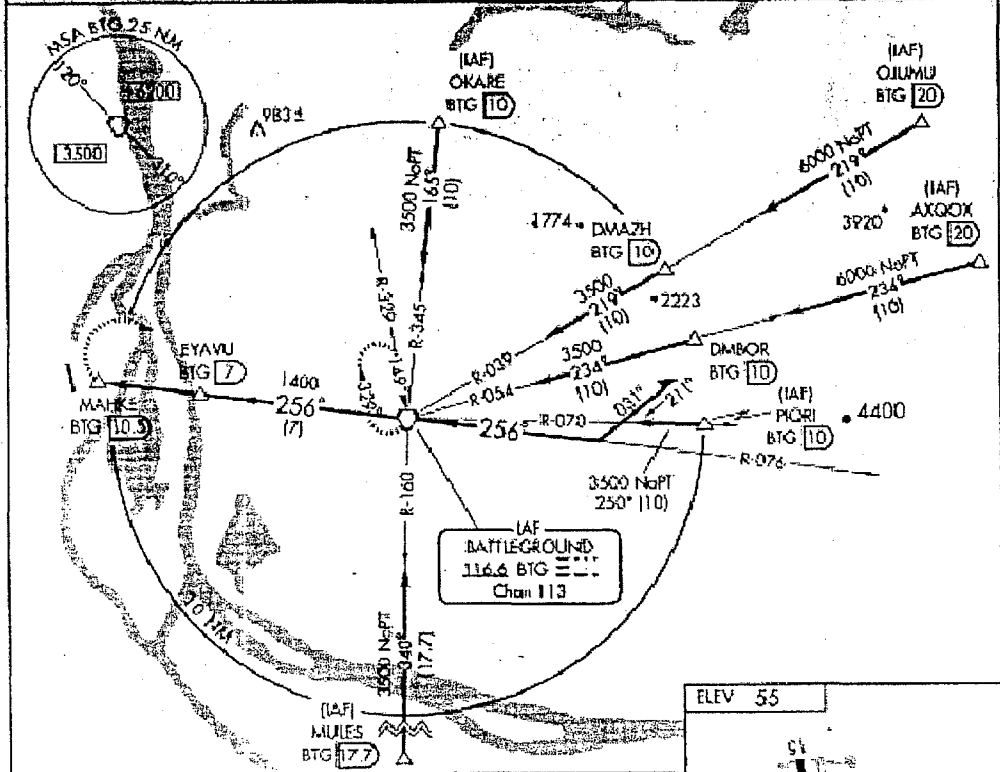
SCAPPOOSE, OREGON

414  
AL-6314 (FAA)

VORTAC BTG <b>118.6</b> Chan 113	APP CRS <b>256°</b>	Rwy Idg TDZE Apt Elev	N/A N/A 55
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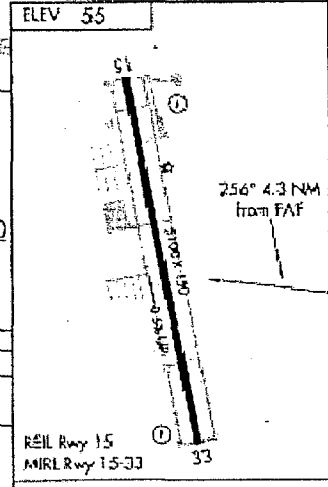
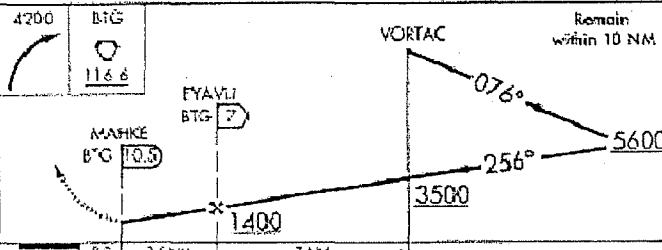
VOR/DME or GPS-A  
SCAPPOOSE INDUSTRIAL AIRPARK (SPB)

<p>MISSED APPROACH: Climbing right turn to 4200 direct BTG VORTAC and hold.</p>			
ASOS <b>135.875</b>	PORTLAND APP CON <b>124.35 299.2</b>	CUNC DEL <b>121.65</b>	UNICOM <b>122.8 (CTAF)</b>



NW-1, 1 NOV 2003

NW-1, 1 NOV 2003



CATEGORY	A	B	C	D
CIRCLING	680-1 625 (700-1)	940-1½ 885 (900-1½)	1000-2¾ 945 (1000-2¾)	1260-3 1205 (1300-2)

Knots	60	90	120	150	180
Min:Sec					

SCAPPOOSE 70N  
Amdt 2 013L  
45° 46' N - 122° 52' W  
SCAPPOOSE INDUSTRIAL AIRPARK (SPB)  
VOR/DME or GPS-A

31/face: SEATTLE / System: WHP-SEA-GRCH21 / User: CBONTEMPO

DESIGNED BY:	CHECKED BY:	LAM			
DRAWN BY:	APPROVED BY:	CMB			
LAST EDIT:	PLOT DATE:	02/19/03 03/11/03			
DATE	BY	REV#	REVISION	CHK'D	APPR.

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PORT OF ST. HELENS  
SCAPPOOSE INDUSTRIAL AIRPARK  
**INSTRUMENT APPROACH PROCEDURES**

SCAPPOOSE  
SCALE: N.T.S. PROJECT NO. 30398 DRAWING FILE NAME: EXHIBIT-2E.DWG OREGON  
**1E SHEET**

SCAPPOOSE, OREGON

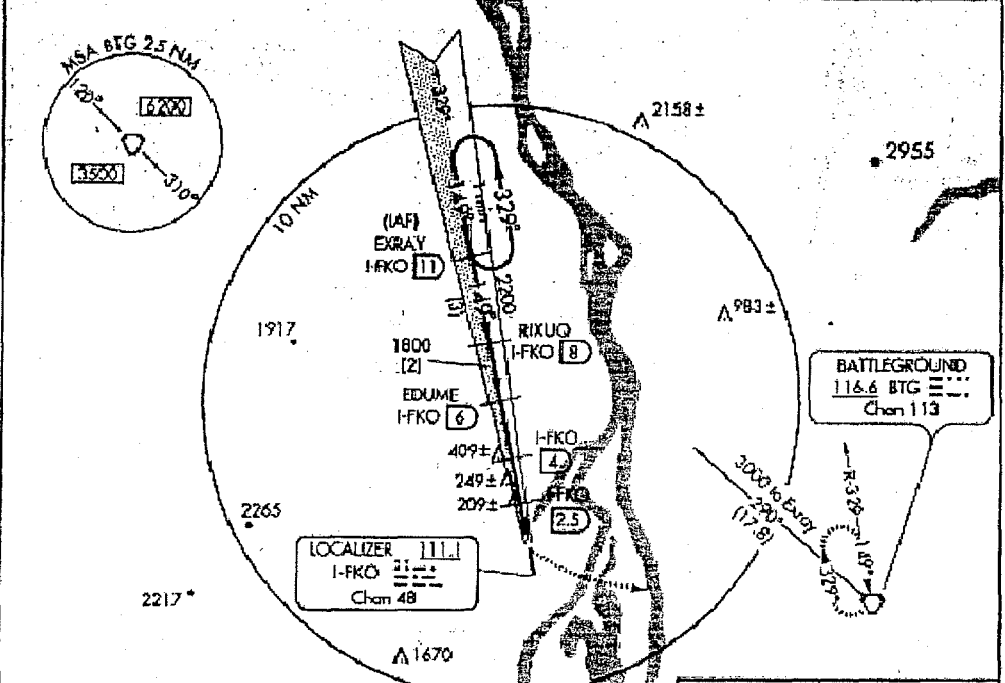
AI-6314 (FAA)

LOC/DME <b>111.1</b> Chan 48	APP CRS <b>149°</b>	Rwy Idg <b>510L</b> TDZE <b>55</b> Apt Elev <b>55</b>
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**LOC/DME RWY 15**  
SCAPPOOSE INDUSTRIAL AIRPARK (SPB)

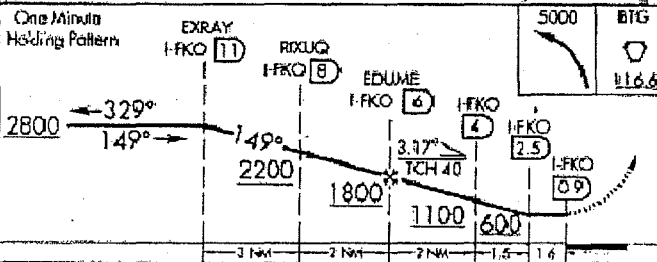
▼ Circling not authorized west of Rwy 15-33. MISSED APPROACH: Climbing left turn to 5000 direct BTG VORTAC and hold.

ASOS 135.875	PORTLAND APP CON 124.35 299.2	CUNC DEL 121.65	UNICOM 122.8 (CTAF)
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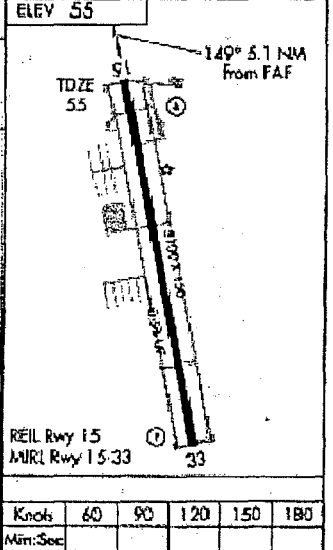


NW-1, 1 NOV 2001

NW-1, 1 NOV 2001



CATEGORY	A	B	C	D
S-15	460-1	405 (500-1)	460-1½	405 (500-1½)
CIRCLING	480-1	520-1	520-1½	620-2
	425 (500-1)	445 (500-1)	465 (500-1½)	565 (600-2)



SCAPPOOSE, OREGON  
Amdt 1 01 205

45°46'N-127°52'W  
413

SCAPPOOSE INDUSTRIAL AIRPARK (SPB)  
**LOC/DME RWY 15**

flicc: SEATTLE / System: WHP-SEA-BRCY121 / User: CBONTEMPO

DESIGNED BY:	CHECKED BY:	LAM			
DRAWN BY:	APPROVED BY:	CMB			
LAST EDIT:	PLOT DATE:	02/19/03 03/11/03			
DATE	BY	REV#	REVISION	CK'D	APPR

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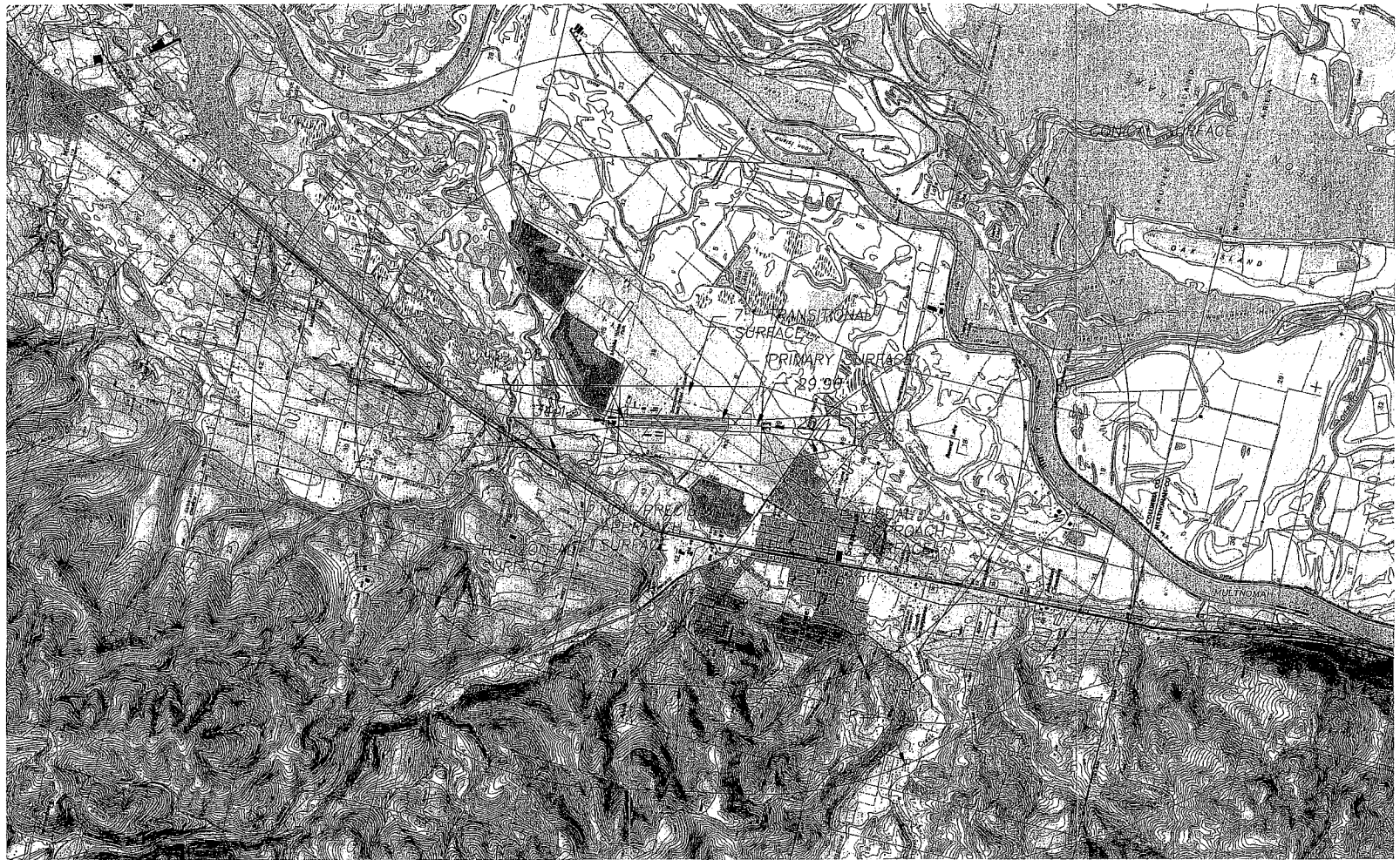
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**PORT OF ST. HELENS  
SCAPPOOSE INDUSTRIAL AIRPARK  
INSTRUMENT APPROACH  
PROCEDURES**

OREGON

SCALE: N.T.S	PROJECT NO. 30398	DRAWING FILE NAME: EXHIBIT-2F.DWG	1F SHEET
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DWG INDEX: 10/04



ORIG: SEATTLE / System: AWP-SEA-2500021 / User: GONTERMAN

DESIGNED BY:	CHECKED BY:	LAM	
DRAWN BY:	APPROVED BY:		
LAST EDIT: 04/07/03	PLOT DATE: 04/07/03		
DATE	BY	REVISION	CK'D BY

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**PORT OF ST. HELENS  
SCAPPOOSE INDUSTRIAL AIRPARK  
PART 77  
EXHIBIT 1G**

SCAPPOOSE	PROJECT NO. 30397	DRAWING FILE NAME: EXHIBIT-1G	OREGON <b>1G</b> SHEET
SCALE: 1" = 4000'			

**Table 1C, Based Aircraft**

<b>Aircraft Type</b>	<b>2000</b>
Single Engine	122
Multi-Engine	5
Jet	1
Helicopter	0
Gyrocopter	6
Military	0
Ultra-light	6

Since there is no air traffic control tower at Scappoose Industrial Airpark, airport operations are based off of approximations from the airport operator. Airport operations have been obtained from the FAA 5010 Form and are as shown in **Table 1D**.

Itinerant operations, defined as operations performed by aircraft that have a destination or origin from another airport, accounted for approximately 46 percent of the total operations in 2002.

**Table 1D, Air Traffic Operations**

	<b>Itinerant Operations</b>	<b>Local Operations</b>	<b>Total Operations</b>
2002 Operations	27,670	32,485	60,155

Operations activities increase during the spring and summer months, primarily as a result of improved weather conditions.

**AIRSPACE**

**PART 77 IMAGINARY SURFACES**

The Part 77 surfaces are the basis for protection of the airspace around the airport. It is ideal to keep these areas clear of obstructions. The Part 77 surfaces for Scappoose Industrial Airpark are as follows (see **Exhibit 1G, Part 77 Imaginary Surfaces**, for more detail):

**Primary Surface:** A rectangular surface with a width that varies for each runway (centered on the runway centerline) and a length that extends 200 feet beyond each end of the runway. The elevation of the primary surface corresponds to the elevation of the nearest point of the runway centerline. The width of the primary surface is 500 feet for Runway 15/33.

**Approach Surface:** A surface centered on the extended runway centerline, starting at each end of the primary surface, 200 feet beyond each end of the runway at a width equal to that of the primary surface and an elevation equal to that of the end of



the runway; extending a horizontal distance of 5,000 feet at a slope of 20:1 for visual approaches (Runway 33) and 10,000 feet at a slope of 34:1 for nonprecision approaches (Runway 15) to a width of 1500 feet for Runway 33 and a width of 3500 feet for Runway 15.

**Transitional Surface:** A sloping 7:1 surface that extends outward and upward at right angles to the runway centerline from the sides of the primary surface and the approach surfaces.

**Horizontal Surface:** An elliptical surface at an elevation 150 feet above the established airport elevation created by swinging 10,000-foot radius arcs from the center of each end of the primary surface of Runway 15/33.

**Conical Surface:** A surface extending outward and upward from the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet.

Obstructions to these surfaces will be addressed in the Airport Plans chapter.

The local airport that has the most effect on Scappoose Industrial Airpark's Airspace is the Portland International Airport. Portland International Airport's Airport Radar Service Area (ARSA) is within six miles of Scappoose. This affects flights out of Scappoose Airpark that are heading the direction of the ARSA because on-board navigational and communications equipment are required to operate in this area. Also, Portland's precision approach for Runway 10 five miles to the south of the airport and

both Scappoose and Portland make use of Battleground Airport's VOR. These airspace considerations must be made when looking at any expansion of Scappoose Industrial Airpark relative to airspace improvements.

## **AIRPORT TRAFFIC PATTERNS**

There is a left traffic pattern for Runway 15 and right traffic pattern for Runway 33.

## **EXISTING LAND USE AND ZONING**

### **ON-AIRPORT LAND USE**

The entirety of the 197 acres of airport property is used for aviation purposes. The airport property is zoned as "public use airport". The airport is currently looking to purchase ±60 acres of property on the east side of the runway. The acquisition of this property may allow for the addition of a turf runway to the airport.

### **WETLANDS**

There are no known wetlands on the airport property.

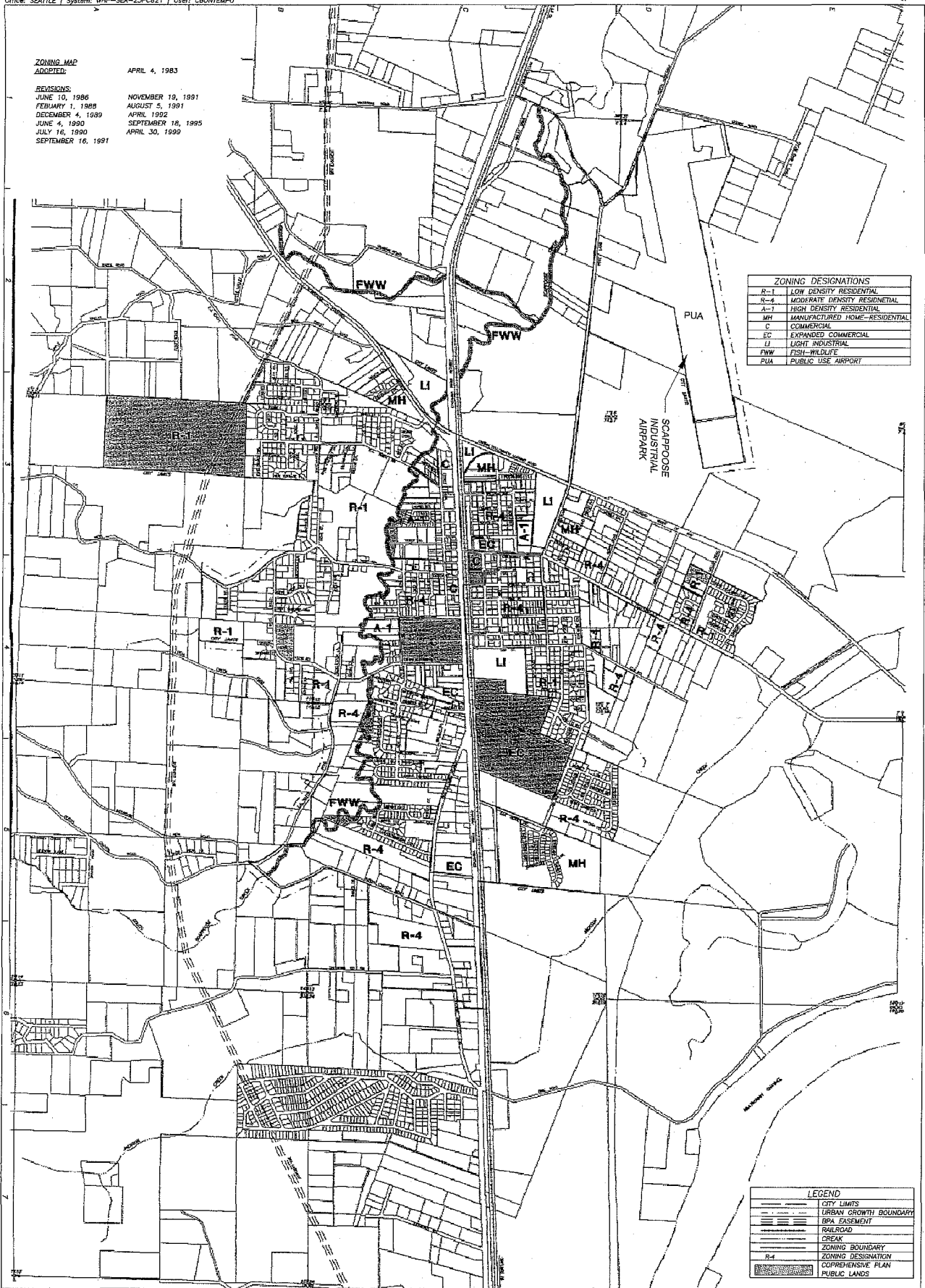
### **WIND AND METEOROLOGICAL DATA**

No specific wind data has ever been obtained for Scappoose Industrial Airpark. It has been noted that wind generally follows the alignment of the runway and that wind from the north

**ZONING MAP**  
 ADDED: APRIL 4, 1983

**REVISIONS:**

JUNE 10, 1986	NOVEMBER 19, 1991
FEBRUARY 1, 1989	AUGUST 5, 1991
DECEMBER 4, 1989	APRIL 1992
JUNE 4, 1990	SEPTEMBER 18, 1995
JULY 16, 1990	APRIL 30, 1999
SEPTEMBER 16, 1991	



ZONING DESIGNATIONS	
R-1	LOW DENSITY RESIDENTIAL
R-4	MODERATE DENSITY RESIDENTIAL
A-1	HIGH DENSITY RESIDENTIAL
MH	MANUFACTURED HOME-RESIDENTIAL
C	COMMERCIAL
EC	EXPANDED COMMERCIAL
LI	LIGHT INDUSTRIAL
FWW	FISH-WILDLIFE
PUA	PUBLIC USE AIRPORT

LEGEND	
(Symbol)	CITY LIMITS
(Symbol)	URBAN GROWTH BOUNDARY
(Symbol)	IRFA CEMENT
(Symbol)	RAILROAD
(Symbol)	CREAK
(Symbol)	ZONING BOUNDARY
(Symbol)	ZONING DESIGNATION
(Symbol)	COMPREHENSIVE PLAN
(Symbol)	PUBLIC LANDS

DESIGNED BY: _____	CHECKED BY: LAM				
DRAWN BY: CMB	APPROVED BY: _____				
LAST EDIT: 02/19/03	PLOT DATE: 03/11/03				
DATE	BY	REV	REVISION	CK'D	APP'R

**PORT OF ST. HELENS  
 SCAPPOOSE INDUSTRIAL AIRPARK  
 ZONING MAP  
 EXHIBIT 1H**

SCALE: N.T.S.      PROJECT NO. 30398      DRAWING FILE NAME: EXHIBIT-2H

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SHEET 1H

and the south occurs with equal frequency.

Current meteorological data is available from the airport ASOS.

## **OFF-AIRPORT LAND USE**

### **Zoning**

The airport is generally surrounded by agricultural type zoning. The airport property is zoned as public use airport. A variety of levels of residential areas are to the south of the airport. These residential areas are the primary noise sensitive locations around the airport. See **Exhibit 1H, Zoning Map**, for the zoning around the airport.

The City of Scappoose and Columbia County have defined an Airport Overlay Zone. This definition provides the municipalities with a means of protecting the airport airspace and the runway protection zones. The overlay

provides height, lighting, emissions and other restrictions to assure that land use and zoning is compatible with this space. The Port of St. Helens also has a number of aviation easements off each end of the runway.

### **Scappoose Airpark Industrial Business Park**

The Port of St. Helens, in cooperation with CIDA, has developed a conceptual master plan for an industrial business park on the west side of the airport, outside airport property. The business park is planned for a 20-acre parcel that is zoned as light industrial. Possible developments include hangars, maintenance facilities, public or private educational facilities and individual sites for aviation-based business. Access to the airport is an important aspect of the business park development. Additional detail can be found in the Port of St. Helens "Master Plan for Scappoose Airpark Industrial Business Park."



## Chapter Two

# AVIATION DEMAND FORECASTS

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# AVIATION DEMAND FORECASTS



Facility planning must begin with a definition of the demand that may reasonably be expected to occur at the airport over a specific period of time. For Scappoose Industrial Airpark, this involves forecasts of aviation activity through the year 2022. In this report, forecasts of based aircraft, based aircraft fleet mix, and annual aircraft operations will serve as the basis for facility planning.

The resulting forecast may be used for several purposes, including facility needs assessments, airfield capacity evaluation, projected airport revenue analysis, and environmental evaluations. The forecasts will be reviewed and approved by the Federal Aviation Administration (FAA) and the Oregon Department of Aviation, to ensure that they are reasonable projections of aviation activity.

It is virtually impossible to predict, with any certainty, year-to-year fluctuations of activity when looking twenty years into the future. Because aviation activity can be affected by many influences at the local, regional, and national levels, it is important to remember that forecasts are developed to serve only as guidelines and planning must remain flexible enough to respond to unforeseen facility needs. To maintain this flexibility, the facility demands must be regularly reviewed.

The following forecast analysis examines recent developments in aviation activity on a national basis, local socioeconomic trends and service areas, as well as changes in forecast indicators at Scappoose Industrial Airpark over the past decade, to provide updated operational projections. The intent is to permit the Port of St. Helens



to make the necessary planning adjustments to ensure the facility meets projected demands in an efficient and cost-effective manner.

## **NATIONAL AVIATION TRENDS**

Each year, the FAA publishes its national aviation forecast. Included in this publication are forecasts for air carriers, regional/commuters, general aviation, air cargo, and military activity. The forecasts are prepared to meet budget and planning needs of the constituent units of the FAA and to provide information that can be used by state and local authorities, the aviation industry, and by the general public. The current edition when this chapter was prepared was *FAA Aerospace Forecasts-Fiscal Years 2002-2013*, published in March 2002. The forecasts use the economic performance of the United States as an indicator of future aviation industry growth. Similar economic analyses are applied to the outlook for aviation growth in international markets.

### **GENERAL AVIATION**

Following more than a decade of decline, the general aviation industry was revitalized with the passage of the *General Aviation Revitalization Act* in 1994 (federal legislation which limits the liability on general aviation aircraft to 18 years from the date of manufacture). This legislation sparked an interest to renew the manufacturing of general aviation aircraft, due to the

reduction in product liability, as well as renewed optimism for the industry. The high cost of product liability insurance was a major factor in the decision by many American aircraft manufacturers to slow or discontinue the production of general aviation aircraft.

However, this continued growth in the general aviation industry appears to have slowed considerably in 2001, negatively impacted by the events of September 11<sup>th</sup>. Thousands of general aviation aircraft were grounded for weeks, due to "no-fly zone" restrictions imposed on operations of aircraft in security-sensitive areas. Some U.S. airports in and around Washington, D.C. and New York City remained closed to visual flight rules (VFR) traffic. This, in addition to the economic recession already taking place in 2001-02, has had a profoundly negative impact on the general aviation industry.

According to the General Aviation Manufacturers Association (GAMA), aircraft shipments were down 13.4 percent for the third quarter of 2001, and 6.2 percent year-to-date. The Aerospace Industries Association of America (AIAA) expects general aviation shipments to decline for the first time since 1994, down 8.8 percent, to 2,556 aircraft. The number of general aviation hours flown is projected to decline by 2.2 percent in 2002, and increase by only 0.4 percent the following year.

At the end of 2001, the total pilot population, including student, private, commercial, and airline transport, was

estimated at 649,957. This is an increase of 3.9 percent, or 24,000 pilots, from 2000. Student pilots were the only group to experience a decrease in 2001, down 6.6 percent from 2000. The number of student pilots is projected to decline by 4.5 percent in 2002, and an additional 1.2 percent the following year. After 2004, the number of student pilots is expected to increase at an average annual rate of 1.0 percent, totaling 90,000 in 2013, which is less than the number recorded in 2000 (93,064).

However, the events of September 11<sup>th</sup> have not had the same negative impact on the business/corporate side of general aviation. The increased security measures placed on commercial flights has increased interest in fractional and corporate aircraft ownership, as well as on-demand charter flights for short-haul routes. This is reflected in the forecast of active general aviation pilots, excluding air transport pilots, to increase by 54,000 (0.8 percent annually) over the forecast period.

The most notable trend in general aviation is the continued strong use of general aviation aircraft for business and corporate uses. According to the FAA, general aviation operations and general aviation aircraft handled at enroute traffic control centers increased for the ninth consecutive year, signifying the continued growth in the use of more sophisticated general aviation aircraft. The forecast for general aviation aircraft assumes that business use of general aviation will expand much more rapidly than

personal/sport use, due largely to the expected growth in fractional ownership.

In 2000, there was an estimated 217,533 active general aviation aircraft, representing a decrease of 0.9 percent from the previous year, and the first decline in five years. **Exhibit 2A** depicts the FAA forecast for active general aviation aircraft in the United States. The FAA forecasts general aviation aircraft to increase at an average annual rate of 0.3 percent over the 13-year forecast period. Single-engine piston aircraft is expected to decrease from 149,422 in the short-term, and then begin a period of slow growth after 2004, reaching 152,000 in 2013. Multi-engine piston aircraft is expected to remain relatively flat throughout the forecast period. Turbine-powered aircraft are expected to grow at an average annual rate of 2.1 percent over the forecast period, faster than all other segments of the national fleet. Turbojet aircraft are expected to provide the largest portion of this growth, with an annual average growth rate of 3.4 percent. This strong growth projected for the turbojet aircraft can be attributed to the growth in the fractional ownership industry, new product offerings (which include new entry level aircraft and long-range global jets), and a shift from commercial travel by many travelers and corporations. Turboprop aircraft, on the other hand, are projected to grow at an average annual rate of only 0.2 percent over the forecast period.

Manufacturer and industry programs and initiatives continue to revitalize the

general aviation industry. Notable initiatives include the "No Plane, No Gain" program promoted jointly by the General Aviation Manufacturers Association (GAMA) and the National Business Aircraft Association (NBAA). This program was designed to promote cost-effectiveness of using general aviation aircraft for business and corporate uses. Other programs, which are intended to promote growth in new pilot starts and to introduce people to general aviation include "Project Pilot," sponsored by the Aircraft Owners and Pilots Association (AOPA), "Be a Pilot," jointly sponsored and supported by more than 100 industry organizations, and "Av Kids," sponsored by the NBAA.

The general aviation industry is also launching new programs to make aircraft ownership easier and more affordable. Piper Aircraft Company has created Piper Financial Services (PFS) to offer competitive interest rates and/or leasing of Piper aircraft. The EAA offers financing for kit-built airplanes through a private lending institution. Over the years, programs such as these have played an important role in the success of general aviation, and will continue to be vital to its growth in the future.

### ***FORECASTING APPROACH***

The development of aviation forecasts proceeds through both analytical and judgmental processes. A series of mathematical relationships is tested to establish statistical logic and rationale for projected growth. However, the

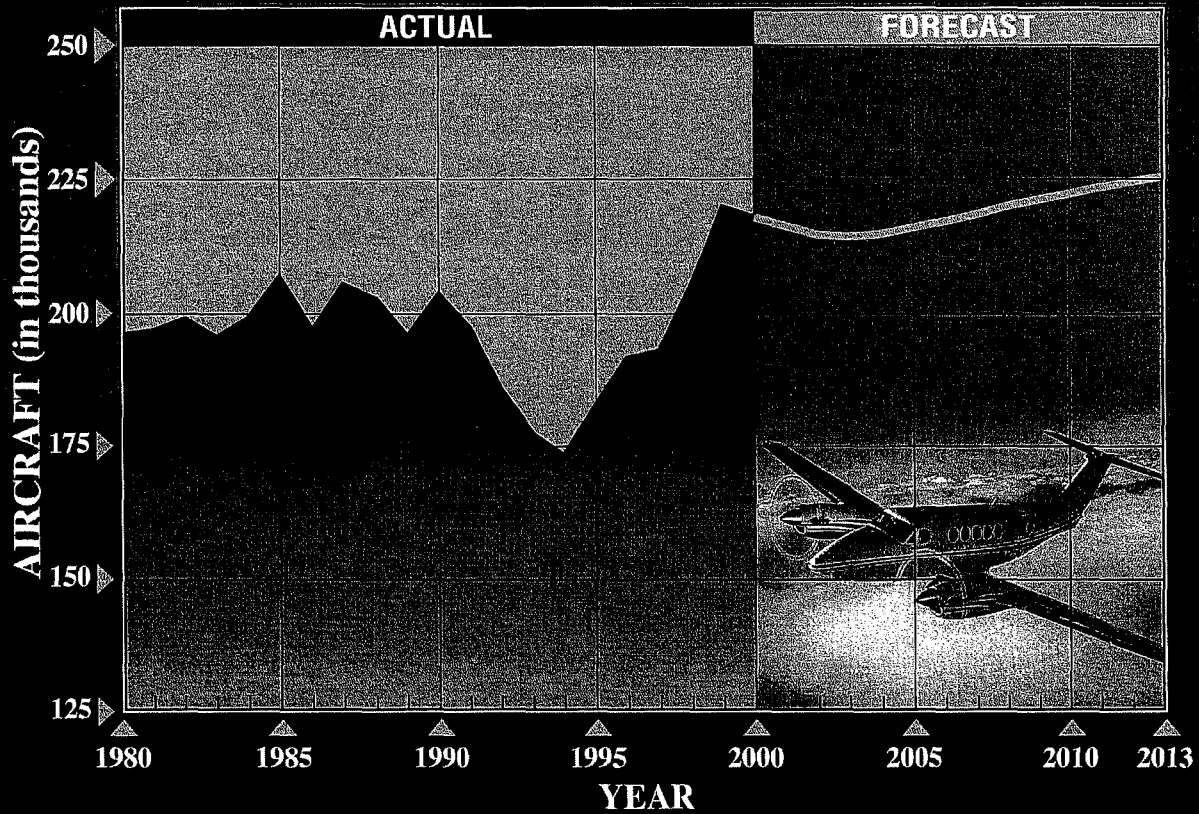
judgement of the forecast analyst, based upon professional experience, knowledge of the aviation industry, and assessment of the local situation, is important in the final determination of the preferred forecast.

It is important to note that one should not assume a high level of confidence in forecasts that extend beyond five years. Facility and financial planning usually require at least a ten-year preview, since it often takes more than five years to complete a major facility development program. However, it is not important to use forecasts which do not overestimate revenue-generating capabilities or understate demand for facilities needed to meet public (user) needs.

A wide range of factors are known to influence the aviation industry and can have significant impacts on the extent and nature of air service provided in both the local and national market. Technological advances in aviation have historically altered, and will continue to change, the growth rates in aviation demand over time. The most obvious example is the impact of jet aircraft on the aviation industry, which resulted in a growth rate that far exceeded expectations. Such changes are difficult, if not impossible to predict, and there is simply no mathematical way to estimate their impacts. Using a broad spectrum of local, regional, and national economic and aviation information, and analyzing the most current aviation trends, forecasts have been developed and presented in the following sections.



## ACTIVE GENERAL AVIATION AIRCRAFT



## U.S. ACTIVE GENERAL AVIATION AIRCRAFT (in thousands)

As of Dec. 31, 1998	FIXED WING				ROTORCRAFT					Total
	PISTON		TURBINE		Piston	Turbine	Experimental	Other		
	Single Engine	Multi-Engine	Turboprop	Turbojet						
2000	149.4	21.1	5.8	7.0	2.7	4.5	20.4	6.7	217.6	
2003	146.0	20.7	5.7	7.5	2.6	4.3	20.4	6.7	213.9	
2008	148.7	20.7	5.8	9.6	2.8	4.5	20.8	6.8	219.7	
2013	152.0	20.7	5.9	10.9	2.9	4.6	21.4	6.9	225.3	

Sources: FAA General Aviation and Air Taxi Activity (and Avionics) Surveys;  
 FAA Aerospace Forecasts, Fiscal Years 2002-2013.

Notes: An active aircraft is one that has a current registration and was flown at least one-hour during the calendar year.



## SOCIOECONOMIC PROJECTIONS

A variety of historical and forecast socioeconomic data related to Columbia County and the State of Oregon has been collected for use in various elements of this master plan. This information provides essential background for use in determining aviation service level requirements. Aviation forecasts are often related to the population base, as well as the economic strength of the region (i.e. personal income per capita and employment sectors).

## POPULATION

Population is one of the most important elements to consider when planning for future needs of the airport. Historical population totals for the City of Scappoose, Columbia County, and the State of Oregon were obtained from the U.S. Census Bureau and are presented in **Table 2A**. Oregon's population experienced a 1.9 percent average annual growth rate between 1990 and 2000, with nearly one million new residents. During this same time, Columbia County's population increased at an average annual rate of 1.5 percent. The City's population increased by more than 1,400 persons over the past decade, growing at an average annual rate of 3.5 percent.

AREA	HISTORICAL			FORECAST			
	1990	2000	Avg. Annual Growth Rate (1990-2000)	2007	2012	2022	Avg. Annual Growth Rate (2000-2022)
Columbia County	37,557	43,560	1.5%	44,560	46,640	51,200	0.7%
State of Oregon	2,842,321	3,421,399	1.9%	3,719,800	3,948,900	4,416,600	1.2%

Source: Historical Population- U.S. Census Bureau; Forecast Population - Interpolated from State of Oregon Office of Economic Analysis.

Oregon's population is projected to grow at an average annual rate of 1.2 percent, which is nearly double the County's projected growth rate of 0.7 percent. According to the *2000 Oregon Department of Aviation Plan*, approximately 72 percent of the State's

projected growth will be in the Portland metro area and Willamette Valley. Forecasts by the State of Oregon Office of Economic Analysis project the population in Columbia County to reach 51,200 by the end of the planning period. Population forecasts for the

City of Scappoose were not available. Assuming the City's population continues to grow at an average annual rate of 3.5 percent, the population would reach 10,600 by 2022.

## EMPLOYMENT

Analysis of a community's employment base can be valuable in determining the

overall well-being of that community. In most cases, the community's make-up and health is significantly impacted by the number of jobs, variety of employment opportunities, and types of wages provided by local employers. **Table 2B** presents historical and forecasted employment (non-agricultural) in Columbia County by economic sector.

<b>Economic Sector</b>	<b>2000</b>	<b>% of Total Employment 2000</b>	<b>2022</b>	<b>% of Total Employment 2022</b>	<b>Average Annual Growth Rate (2000-2022)</b>
<b>Total Employment</b>	<b>14,330</b>	<b>100.0%</b>	<b>17,575</b>	<b>100.0%</b>	<b>0.9%</b>
Mining	130	0.9%	195	1.1%	1.9%
Construction	920	6.4%	1,080	6.1%	0.7%
Manufacturing	2,280	15.9%	2,485	14.1%	0.4%
Transp. & Public Utilities	1,110	7.7%	1,190	6.8%	0.3%
Wholesale Trade	320	2.2%	385	2.2%	0.8%
Retail Trade	2,920	20.4%	3,910	22.2%	1.3%
Finance, Ins., & Real Estate	1,090	7.6%	1,520	8.6%	1.5%
Services	3,430	23.9%	4,465	25.4%	1.2%
Government	2,130	14.9%	2,345	13.3%	0.4%

Source: CEDDS, Woods & Poole (2002).

As shown in the table, the services, retail trade, and manufacturing industries dominated the county's total employment in 2000. The services industry accounted for the largest share (3,430), capturing nearly 24 percent of all employment. The retail trade industry contributed approximately 20 percent (2,920) of the total, while the manufacturing industry made up nearly 16 percent (2,280) of all jobs in 2000. Government also plays an important part of the economic sector, capturing nearly 15 percent of total employment in 2000.

The current industry projections for the county indicate that total employment will increase at an average annual rate of 0.9 percent (3,245 jobs) between 2000 and 2022. The services industry will continue to dominate employment, growing at an average annual rate of 1.2 percent and capturing more than 25 percent of total employment by the year 2022. The retail trade, services, and government sectors will also continue to be significant sectors of employment through 2022.

## INCOME

**Table 2C** compares per capita personal income (PCPI), adjusted for 1996 dollars, for Columbia County, the State of Oregon, and the United States. Historically, the PCPI for Columbia County has remained below that of both

Oregon and the United States. Forecasts project an annual growth rate of less than one percent for Columbia County, while Oregon and the United States are projected to grow at an average annual rate of 1.0 percent and 1.1 percent, respectively. These forecasts are presented in **Table 2C**.

Area	HISTORICAL			FORECAST			
	1990	2000	Annual Increase 1990-2000	2007	2012	2022	Annual Increase 2000-2022
Columbia Co.	\$19,170	\$24,080	2.3%	\$25,710	\$26,780 <sup>1</sup>	\$28,600 <sup>1</sup>	0.8%
Oregon	\$21,320	\$25,560	1.8%	\$27,600	\$29,060 <sup>1</sup>	\$32,010 <sup>1</sup>	1.0%
United States	\$22,870	\$27,000	1.7%	\$29,230	\$30,900 <sup>1</sup>	\$34,500 <sup>1</sup>	1.1%

Source: CEDDS, Woods & Poole (2002).  
<sup>1</sup>Interpolated by Coffman Associates.

## STATE AVIATION SYSTEM PLAN

Oregon's system of airports provides a crucial component to the state's transportation network. At the state level, the Oregon Department of Aviation provides state-wide planning through the *2002 Oregon Department of Aviation Plan*. The purpose of the Plan is to identify the physical facility needs for the state's system of airports. According to the most recent state aviation plan (2000), there are 101 public-use airports in the State of Oregon, including nine commercial service airports that provide regularly scheduled passenger services.

The *2000 Oregon Department of Aviation Plan* has established five categories of airports based on their

different functions. Scappoose Industrial Airpark is listed as a Category 2 airport, which is classified as a business or high activity general aviation airport. Criteria for Category 2 airports is 30,000 operations per year, with at least 500 turbine operations. Activity levels at these airports are typically higher than at other general aviation airports and some Category 1 (commercial service) airports. Category 2 airports typically have locally-based business jets or turboprops and/or substantial amounts of itinerant turbine aircraft activity. Category 2 airports are largely concentrated in the Portland metro area and Willamette Valley, with several overlapping service areas.

The condition of existing facilities and the most recent estimates of based

aircraft and operations were provided in the *2000 Oregon Department of Aviation Plan*. Forecasts included in this Plan, as well as the *1997 Continuous Aviation System Plan*, will be examined for their projections of based aircraft, based aircraft fleet mix, and annual operations.

### **LOCAL SERVICE AREA**

The general aviation service area is affected by the number of nearby airfields which also have the ability to base and serve general aviation aircraft. There are 16 public-use airports within a 30 nautical mile (nm) radius of Scappoose Industrial Airpark. Only three of these airports have a runway 5,000 feet or greater, which is generally preferred by corporate aviation departments operating turbine aircraft. Portland International Airport, whose longest runway is 11,000 feet, is the only commercial service airport within 30 nm.

Other factors affect the decision to base at a given airport, including availability of hangars (and rates), services offered (including fuel), access to major highways, and instrument capabilities. Services provided at many of these airports include major airframe and powerplant repair, aircraft maintenance, aircraft rental/sales, flight training, aerial tours, fuel, pilot supplies, aircraft hangars, tie-downs, courtesy transportation, and catering.

### **BASED AIRCRAFT FORECASTS**

The number of based aircraft at the airport is the most basic indicator of general aviation demand. By first developing a forecast of based aircraft, the growth of other general aviation activities and demands can be projected. Currently, there are 140 aircraft based at Scappoose Industrial Airpark, the majority of which are single-engine aircraft.

According to the *1994 Airport Layout Plan Update*, there were 106 aircraft based at Scappoose Industrial Airpark in 1992. This number has since increased, with the airport reporting 140 based aircraft for 2002. Limited information was available for the years in between. Therefore, time-series and regression analyses were not performed, as they would not provide useful projections of based aircraft. Instead, other means of comparison were used to develop forecasts of based aircraft at Scappoose Industrial Airpark.

The first method used to project based aircraft examined registered aircraft in Columbia and Washington counties, which is the local service area for Scappoose Industrial Airpark. There are currently 833 aircraft registered in the two counties, as compared to 599 registered in 1992. This increase represents an average annual growth rate of 3.4 percent. Applying this growth rate to the forecast years yields 985 registered aircraft by 2007; 1,160 registered aircraft by 2012; and 1,625 registered aircraft by 2022.

The next step was to examine the airport's market share of registered aircraft in the two counties. In 1992, the airport captured 18 percent of aircraft registered in Columbia and Washington counties. Since then, the airport's market share has decreased slightly, capturing 17 percent in 2002. Forecasts of based aircraft were developed based on registered aircraft projections and the airport's market share. The first forecast assumes the

airport's market share will remain constant at 17 percent, yielding 276 based aircraft by 2022. The second forecast uses a decreasing market share projection to reflect the historical trend and yields 244 based aircraft by the year 2022. The third forecast assumes an increasing share projection to reflect a return to earlier market share percentages and yields 309 based aircraft by 2022. These market share forecasts are presented in **Table 2D**.

<b>TABLE 2D</b>			
<b>Based Aircraft Market Share of Registered Aircraft (Columbia and Washington County) Scappoose Industrial Airpark</b>			
<b>Year</b>	<b>Scappoose Based Aircraft</b>	<b>Registered Aircraft (Columbia &amp; Washington counties)</b>	<b>% of Registered Aircraft Based at Scappoose</b>
1992	106	599	18%
2002	140	833	17%
<b><i>Constant Share Projection</i></b>			
2007	167	985	17%
2012	197	1,160	17%
2022	276	1,625	17%
<b><i>Decreasing Share Projection</i></b>			
2007	163	985	16.5%
2012	186	1,160	16.0%
2022	244	1,625	15.0%
<b><i>Increasing Share Projection</i></b>			
2007	172	985	17.5%
2012	209	1,160	18.0%
2022	309	1,625	19.0%
Source: Historical based aircraft - 1994 ALP Update/airport records; Historical registered aircraft - Census of U.S. Civil Aircraft (1992), Avantex Aircraft & Airmen CD (2002).			
* Registered aircraft projections based on historical growth rate (3.4 %).			

Projections of based aircraft were also made in comparison to the percent of U.S. active general aviation aircraft based at Scappoose Industrial Airpark.

There are a reported 216,200 active general aviation aircraft in the United States for 2002. By examining the airport's historical market share, a

constant market share projection and an increasing share projection were developed. The constant market share projection assumes the airport's market share will remain at 0.065 percent through the planning period, yielding 152 based aircraft by the year 2022.

The increasing share projection was developed to represent the historical trend since 1992 and yields 199 based aircraft by the year 2022. These market share forecasts are presented in **Table 2E**.

<b>TABLE 2E</b>			
<b>Based Aircraft Market Share of U.S. Active General Aviation Aircraft Scappoose Industrial Airpark</b>			
<b>Year</b>	<b>Scappoose Based Aircraft</b>	<b>U.S. Active General Aviation Aircraft</b>	<b>% of U.S. Active GA Aircraft Based at Scappoose</b>
1992	106	185,700	0.057%
2002	140	216,200	0.065%
<b><i>Constant Share Projection</i></b>			
2007	142	218,300	0.065%
2012	146	224,300	0.065%
2022	152	234,000 <sup>1</sup>	0.065%
<b><i>Increasing Share Projection</i></b>			
2007	153	218,300	0.070%
2012	168	224,300	0.075%
2022	199	234,000 <sup>1</sup>	0.085%
Source: Historical based aircraft - 1994 ALP Update/airport records; Historical and forecast U.S. active general aviation aircraft from FAA <i>Aerospace Forecasts, Fiscal Years 2002-2013</i> .			
<sup>1</sup> Extrapolated by Coffman Associates.			

Another forecast examined the airport's historical based aircraft as a ratio of 1,000 residents in Columbia County. The 2002 estimated population of Columbia County is 44,870, which equals 3.1 based aircraft per 1,000 residents. Assuming a constant share projection of 3.1 based aircraft per 1,000 residents yields 159 based aircraft by

2022. An increasing share projection was also developed to reflect the historical trend (which has increased at an annual rate of 1.4 percent over the past decade) and yields 256 based aircraft at Scappoose Industrial Airpark by 2022. Both of these forecasts are presented in **Table 2F**.

<b>TABLE 2F</b>			
<b>Based Aircraft Per 1,000 Residents (Columbia County)</b>			
<b>Scappoose Industrial Airpark</b>			
<b>Year</b>	<b>Scappoose Based Aircraft</b>	<b>Columbia County Population</b>	<b>Aircraft Per 1,000 Residents</b>
1992	106	38,690	2.7
2002	140	44,870	3.1
<b>Constant Ratio Projection</b>			
2007	138	44,560	3.1
2012	145	46,640	3.1
2022	159	51,200	3.1
<b>Increasing Ratio Projection</b>			
2007	156	44,560	3.5
2012	187	46,640	4.0
2022	256	51,200	5.0
Source: Historical based aircraft - 1994 ALP Update/airport records; Historical population - U.S. Census Bureau, Forecast Population - Interpolated from State of Oregon Office of Economic Analysis.			

Several additional forecasts were also examined, including previous master plans, state aviation system plans, and the FAA's *Terminal Area Forecast (TAF)*. The most recent forecast is included in the *2000 Oregon Department of Aviation Plan*. This state plan used 1994's total of 126 based aircraft as the base year for their projections through the year 2018. Extrapolation of this forecast yields 174 based aircraft at Scappoose Industrial Airpark by the year 2022. The *1997 Oregon Continuous Aviation System Plan* was also examined. The forecast included in this plan, which also used 1994 as the base year for its projections, yields 175 based aircraft by the year 2022.

The two previous master plans that were examined include the *1994 Airport*

*Layout Plan (ALP) Update* and the *1991 Airport Master Plan*. The forecasts included in both of these master plans anticipated a shift of aircraft from the expected closure of Evergreen Airport, which remains open to this day. The *1994 Airport Layout Plan (ALP) Update*, which projected based aircraft through 2013, used a total of 106 based aircraft as a basis. Extrapolation of this forecast yields 214 based aircraft by the year 2022. The *1991 Airport Master Plan* used the existing level of 117 based aircraft from which to base its forecasts. Projections of based aircraft included in this master plan were provided through the year 2008. Extrapolation of this forecast yields 156 based aircraft at Scappoose Industrial Airpark by the year 2022.



As previously mentioned, the FAA TAF was also examined. The FAA TAF projects based aircraft for all commercial service airports in the United States. However, the TAF used 75 as the number of based aircraft in 2000, which is well below the actual number. Therefore, forecasts of based aircraft included in the TAF were not considered relevant.

One final method used to project based aircraft at Scappoose Industrial Airpark examined the historical growth rate between 1992 and 2002. During this time, based aircraft grew at an average annual rate of 2.8 percent. This growth rate was applied to the forecast period and yields 243 based aircraft by the year 2022.

For planning purposes, a mid-range forecast is generally chosen. The *2000 Oregon Department of Aviation Plan* and the *1997 Oregon Continuous Aviation System Plan* seem to reflect the current number of based aircraft the closest. Interpolation of these two forecasts yields 135 and 138 based aircraft, respectively, at Scappoose Industrial Airpark for 2002. This is slightly below the current level of 140 based aircraft for 2002. However, the historical growth rate of based aircraft yields a much higher level of based aircraft. Therefore, the preferred planning forecast is one that falls in between the two state plans and the historical growth rate and yields 155 based aircraft by the year 2007; 170 based aircraft by the year 2012; and 195 based aircraft by the year 2022. **Table 2G** and **Exhibit 2B** summarize the based aircraft forecasts developed for Scappoose Industrial Airpark.

As previously mentioned, forecasts included in the *1994 Airport Layout Plan (ALP) Update* and the *1991 Airport Master Plan* anticipated a shift of aircraft from the expected closure of Evergreen Airport, which remains open to this day. However, the potential for closure of this airport is still anticipated. It is likely that several of the based aircraft at Evergreen Airport would choose to relocate to Scappoose Industrial Airpark. This is reflected in the chosen forecast.

### **BASED AIRCRAFT FLEET MIX**

While the number of general aviation aircraft basing at Scappoose Industrial Airpark is projected to increase, it is important to know the fleet mix of the aircraft expected to use the airport. This will ensure the proper facilities in the future.

According to airport records, the fleet mix at Scappoose Industrial Airpark consists of the following: 122 single-engine aircraft, five multi-engine aircraft, one jet, six gyrocopters, and six ultralights. The forecast mix of based aircraft was determined by comparing existing and forecast U.S. general aviation trends. The trend in general aviation is toward a greater percentage of larger, more sophisticated aircraft as part of the national fleet. An increase in gyrocopters and ultralights can also be expected at the airport, as well as the addition of a few helicopters by the end of the planning period. General aviation fleet mix projections for the airport are presented in **Table 2H**.

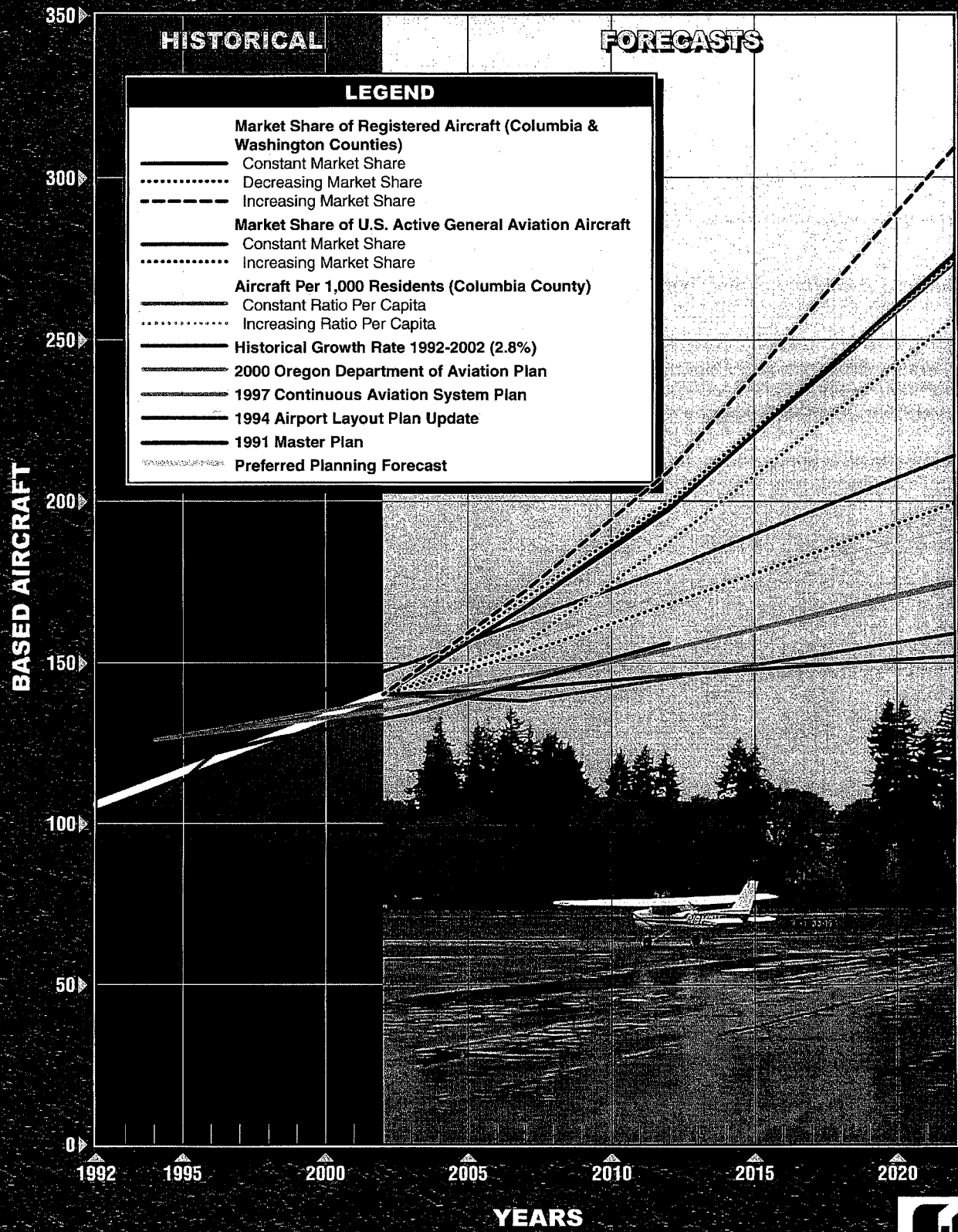


Exhibit 2B  
 BASED AIRCRAFT  
 FORECAST SUMMARY

**TABLE 2G****Summary of Based Aircraft Forecasts  
Scappoose Industrial Airpark**

	2007	2012	2022
Market Share of Registered Aircraft (Columbia & Wash. Co.)			
Constant Market Share	167	197	276
Decreasing Market Share	163	186	244
Increasing Market Share	172	209	309
Market Share of U.S. Active GA Aircraft			
Constant Market Share	142	146	152
Increasing Market Share	153	168	199
Aircraft Per 1,000 Residents (Columbia County)			
Constant Ratio Projection	138	145	159
Increasing Ratio Projection	156	187	256
<i>2000 Oregon Department of Aviation Plan</i>	146 <sup>1</sup>	154 <sup>1</sup>	174
<i>1997 Oregon Continuous Aviation System Plan</i>	144 <sup>1</sup>	154 <sup>1</sup>	175 <sup>2</sup>
<i>1994 Airport Layout Plan Update</i>	163 <sup>1</sup>	179 <sup>1</sup>	214 <sup>2</sup>
<i>1991 Airport Master Plan</i>	144 <sup>1</sup>	156 <sup>2</sup>	-
Historical Growth Rate (1992-2002) 2.8%	161	185	243
<b>Preferred Planning Forecast</b>	<b>155</b>	<b>170</b>	<b>195</b>
<sup>1</sup> Interpolated by Coffman Associates.			
<sup>2</sup> Extrapolated by Coffman Associates.			

**TABLE 2H****General Aviation Fleet Mix Forecast  
Scappoose Industrial Airpark**

Type	EXISTING		FORECAST					
	2002	%	2007	%	2012	%	2022	%
Single-Engine	122	87.1%	131	84.2%	138	81.2%	147	76.0%
Multi-Engine	5	3.6%	7	4.5%	9	5.5%	15	7.5%
Jet	1	0.7%	2	1.5%	3	2.0%	6	3.0%
Gyrocopters	6	4.3%	7	4.8%	9	5.3%	12	6.0%
Helicopters	0	0.0%	1	0.5%	2	1.0%	4	2.0%
Ultralight	6	4.3%	7	4.5%	9	5.0%	11	5.5%
<b>Total</b>	<b>140</b>	<b>100.0%</b>	<b>155</b>	<b>100.0%</b>	<b>170</b>	<b>100.0%</b>	<b>195</b>	<b>100.0%</b>
* Multi-engine category includes turboprop aircraft.								

## OPERATIONS PROJECTIONS

General aviation operations are classified by the airport traffic control tower (ATCT) as either local or itinerant. A local operation is a take-off or landing performed by an aircraft that operates within sight of the airport, or which executes simulated approaches or touch-and-go operations at the airport. Itinerant operations are those performed by aircraft with a specific origin or destination away from the airport. Generally, local operations are characterized by training operations. Typically, itinerant operations increase with business and commercial use, since business aircraft are operated on a high frequency.

Previous forecasts were first examined, including the *2000 Oregon Department*

*of Aviation Plan*, the *1997 Oregon Continuous Aviation System Plan*, and the *1994 Airport Layout Plan Update*, and the *FAA Terminal Area Forecast*. Forecasts included in the 1994 and 1997 plans used 1994's total of 43,142 annual operations as a basis for their projections. Forecasts included in the *2000 Oregon Department of Aviation Plan* were extrapolated from the *1997 Oregon Continuous Aviation System Plan* and no changes in forecast assumptions were made. Forecasts included in the FAA TAF used 2000 as the base year for their projections, with an estimated 46,000 operations that year. Projections included in the TAF indicate no growth in operations through 2015. A summary of each of these projections is presented in **Table 2J**.

	2007	2012	2022
<i>2000 Oregon Department of Aviation Plan</i>	49,900 <sup>1</sup>	52,770 <sup>1</sup>	58,700 <sup>2</sup>
<i>1997 Oregon Continuous Aviation System Plan</i>	56,350 <sup>1</sup>	63,010 <sup>1</sup>	-
<i>1994 Airport Layout Plan Update</i>	66,130 <sup>1</sup>	73,020 <sup>1</sup>	-
<i>FAA Terminal Area Forecast</i>	46,000	46,000	-

<sup>1</sup> Interpolated by Coffman Associates  
<sup>2</sup> Extrapolated by Coffman Associates.

Projections of annual operations, based upon the number of operations per based aircraft, were also examined. The Oregon Department of Aviation performed acoustical counts between October 1, 2000 and September 30,

2002. Nine sample weeks of recordings were scheduled on Runway 15-33. Accurate data for estimating annual aircraft activity was obtained using six of the nine weeks. The estimate of 75,075 was used as a base number of

annual operations for 2002, from which two forecasts were then prepared.

The first forecast assumes the ratio of operations per based aircraft will remain constant at 535, yielding 104,300 annual operations by 2022. Since the FAA has projected growth in annual hours flown by general aviation aircraft and air taxi aircraft in their annual forecasts, the second forecast assumes that the ratio of operations per based aircraft should be expected to increase over time. The increasing ratio projection, which is the preferred

planning forecast, is consistent with the trend over the past decade and yields 112,150 annual operations by 2022. The constant and increasing ratio projections are presented in **Table 2K**. It is expected that local operations will continue to account for 46 percent of total operations and itinerant operations 54 percent, as they have historically. Furthermore, air taxi and military operations are expected to account for three percent and two percent of itinerant operations, respectively, through the planning period.

<b>TABLE 2K</b>					
<b>Operations Per Based Aircraft Forecasts</b>					
<b>Scappoose Industrial Airpark</b>					
<b>Year</b>	<b>Based Aircraft</b>	<b>Itinerant Operations</b>	<b>Local Operations</b>	<b>Total Operations</b>	<b>Operations Per Based Aircraft</b>
1992	106	15,810	18,560	34,370	324
2002	140	34,535	40,540	75,075	535
<b><i>Constant Ratio Projection</i></b>					
2007	155	38,135	44,765	82,900	535
2012	170	41,840	49,110	90,950	535
2022	195	47,990	56,310	104,300	535
<b><i>Increasing Ratio Projection (Preferred Planning Forecast)</i></b>					
2007	155	38,870	45,630	84,500	545
2012	170	43,400	50,950	94,350	555
2022	195	51,590	60,560	112,150	575
* 2002 annual operations are estimated from acoustical counts.					

**PEAKING CHARACTERISTICS**

Most facility planning relates to levels of peak activity. The following planning definitions apply to the peak periods:

- **Peak Month** - The calendar month when peak aircraft operations occur.
- **Design Day** - The average day in the peak month.

- **Busy Day** - The busy day of a typical week in the peak month.
- **Design Hour** - The peak hour within the design day.

The design day is normally derived by dividing the peak month operations by the number of days in the month. However, commercial activity is often heavier on weekdays, which may require an adjustment to reflect peak weekday activity.

It is important to realize that only the peak month is an absolute peak within the year. Each of the other periods will be exceeded at various times during the year. However, each provide reasonable planning standards that can be applied

without overbuilding or being too restrictive.

The peak month for general aviation operations was estimated at 10.0 percent of annual operations, which equates to 7,508 operations. Forecasts of peak month activity have been developed by applying this percentage to the forecasts of annual operations. Design day operations were calculated by dividing the total number of operations in the peak month by the number of days in the month. The design hour is projected as 12.0 percent of the design day operations. Busy day operations were calculated as 1.25 times the design day activity. **Table 2L** summarizes the general aviation peak activity forecasts.

<b>TABLE 2L</b>				
<b>Peak Period Forecasts</b>				
<b>Scappoose Industrial Airpark</b>				
	<b>FORECASTS</b>			
	<b>2002</b>	<b>2007</b>	<b>2012</b>	<b>2022</b>
<b><i>General Aviation Operations</i></b>				
Annual	75,075	84,500	94,350	112,150
Peak Month (10.0%)	7,508	8,450	9,435	11,215
Design Day	250	282	315	374
Busy Day	313	352	393	467
Design Hour (12.0%)	30	34	38	45

## **SUMMARY**

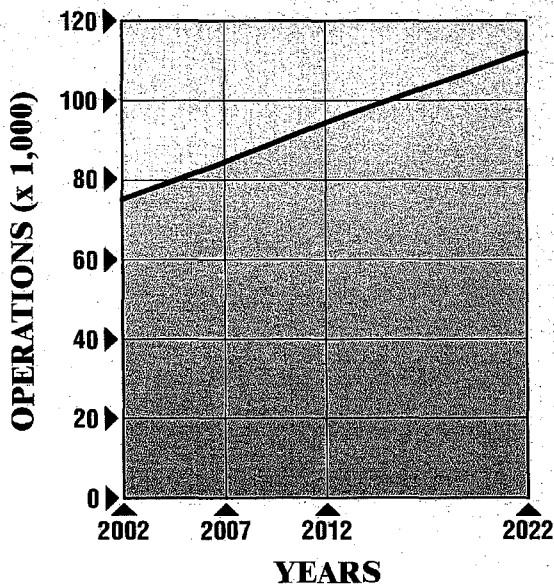
This chapter has provided forecasts for each sector of aviation demand anticipated over the planning period. **Exhibit 2C** presents a summary of the aviation forecasts developed for Scappoose Industrial Airpark. The airport is expected to experience an

increase in total based aircraft, annual operations, as well as an increase in turbine-powered aircraft through the planning period. The next step in this study is to assess the capacity of the existing facilities to accommodate forecast demand and determine what types of facilities will be needed to meet these demands.

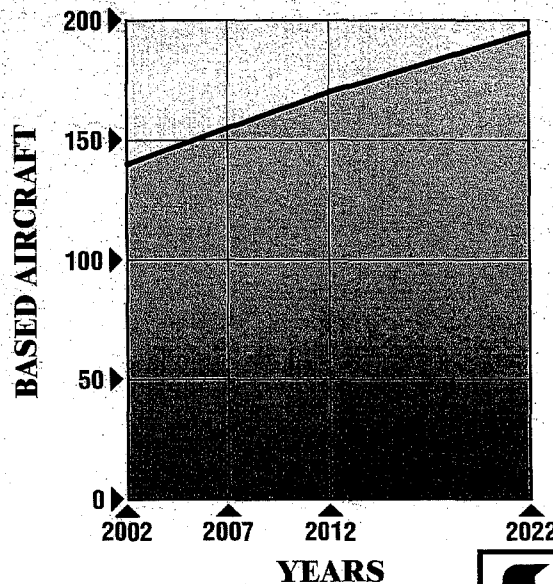
## SUMMARY OF AVIATION ACTIVITY FORECASTS

CATEGORY	<i>Historical</i>		<i>Forecasts</i>	
	2002	2007	2012	2022
<b>Annual Operations</b>				
<b>Itinerant</b>				
Air Taxi	1,035	1,165	1,300	1,550
General Aviation	32,810	36,925	41,230	49,010
Military	690	1,780	870	1,030
<b>Total Itinerant</b>	<b>34,535</b>	<b>38,870</b>	<b>43,400</b>	<b>51,590</b>
<b>Local</b>				
General Aviation	40,540	45,630	50,950	60,560
<b>Total Operations</b>	<b>75,075</b>	<b>84,500</b>	<b>94,350</b>	<b>112,150</b>
<b>Based Aircraft</b>				
Single-Engine	122	131	138	147
Multi-Engine	5	7	9	15
Jet	1	2	3	6
Gyrocopters	6	7	9	12
Helicopters	0	1	2	4
Ultralights	6	7	9	11
<b>Total Based Aircraft</b>	<b>140</b>	<b>155</b>	<b>170</b>	<b>195</b>

**OPERATIONS  
FORECAST**



**BASED AIRCRAFT  
FORECAST**





Chapter Three  
**FACILITY REQUIREMENTS/ALTERNATIVES**

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# FACILITY REQUIREMENTS/ ALTERNATIVES



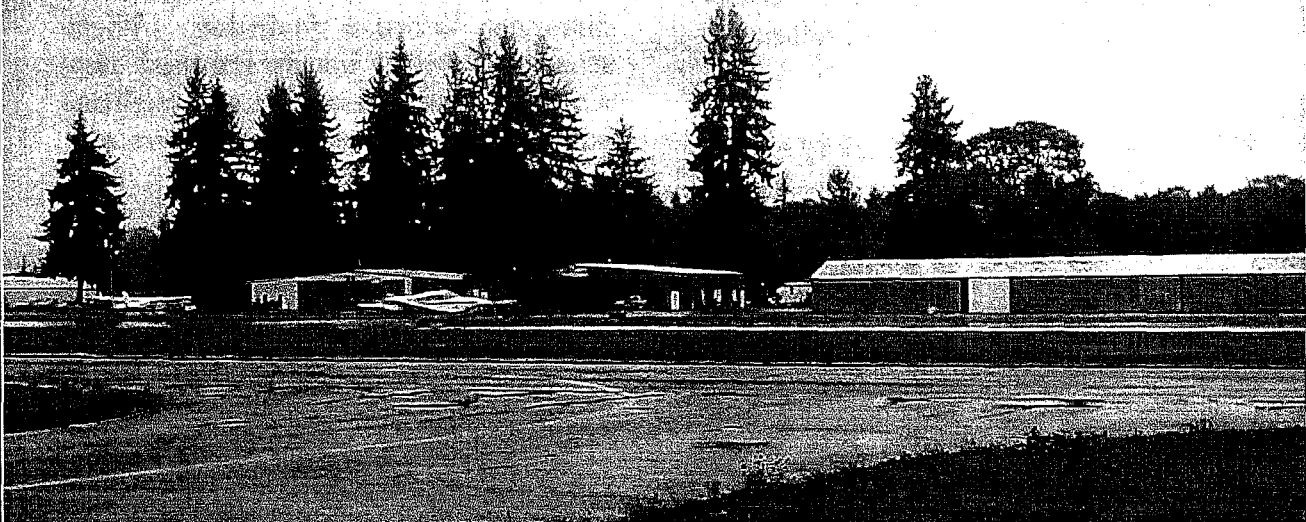
To properly plan for the future of Scappoose Industrial Airpark, it is necessary to translate forecast aviation demand into the specific types and quantities of facilities that can adequately serve this identified demand. This chapter uses the results of the forecasts conducted in Chapter Two, as well as established planning criteria, to determine the airfield (i.e., runways, taxiways, navigational aids, marking and lighting), and landside (i.e., hangars, terminal building, aircraft parking apron) facility requirements.

The objective of this effort is to identify, in general terms, the adequacy of the existing airport facilities, outline what new facilities may be needed, and when these may be needed to accommodate forecast demands. Having established these facility requirements, a

development alternative for providing these facilities have been evaluated at the conclusion of this chapter to determine the most cost-effective and efficient means for implementation.

The cost-effective, efficient, and orderly development of an airport should rely more upon actual demand at an airport than a time-based forecast figure. In order to develop a master plan that is demand-based rather than time-based, a series of planning horizon milestones have been established for Scappoose Industrial Airpark that take into consideration the reasonable range of aviation demand projections prepared in Chapter Two.

It is important to consider that the actual activity at the airport may be higher or lower than projected activity levels. By planning according to



activity milestones, the resultant plan can accommodate unexpected shifts, or changes in the area's aviation demand.

It is important that the plan accommodate these changes so that the Port of St. Helens can respond to unexpected changes in a timely fashion. These milestones provide flexibility, while potentially extending this plan's useful life if aviation trends slow over time.

The most important reason for utilizing milestones is that they allow the airport

to develop facilities according to need generated by actual demand levels. The demand-based schedule provides flexibility in development, as development schedules can be slowed or expedited according to actual demand at any given time over the planning period. The resultant plan provides airport officials with a financially responsible and need-based program. **Table 3A** presents the planning horizon milestones for each activity demand category.

<b>TABLE 3A Planning Horizon Activity Levels Scappoose Industrial Airpark</b>				
	<b>Current Levels</b>	<b>Short-Term</b>	<b>Intermediate Term</b>	<b>Long-Term</b>
Based Aircraft	140	155	170	195
Annual Operations	75,075	84,500	94,350	112,150

## ***AIRFIELD REQUIREMENTS***

Airfield requirements include the need for those facilities related to the arrival and departure of aircraft. These facilities are comprised of the following items:

- Runways (including safety areas)
- Taxiways
- Navigational Aids
- Airfield Lighting and Marking

The selection of appropriate Federal Aviation Administration (FAA) design standards for the development and location of airport facilities is based primarily upon the characteristics of the

aircraft which are currently using, or are expected to use, the airport. Planning for future aircraft use is of particular importance since design standards are used to plan separation distances between facilities. These standards must be determined now since the relocation of these facilities will likely be extremely expensive at a later date.

The FAA has established a coding system to relate airport design criteria to the operational and physical characteristics of aircraft expected to use the airport. This code, the airport reference code (ARC), has two components: the first component,

depicted by a letter, is the aircraft approach speed (operational characteristic); the second component, depicted by a Roman numeral, is the airplane design group and relates to aircraft wingspan (physical characteristic). Generally, aircraft approach speed applies to runways and runway-related facilities, while aircraft wingspan primarily relates to separation criteria involving taxiways, taxilanes, and landside facilities.

According to FAA Advisory Circular (AC) 150/5300-13, *Airport Design*, an aircraft's approach category is based upon 1.3 times its stall speed in landing configuration at that aircraft's maximum certificated weight. The five approach categories used in airport planning are as follows:

**Category A:** Speed less than 91 knots.

**Category B:** Speed 91 knots or more, but less than 121 knots.

**Category C:** Speed 121 knots or more, but less than 141 knots.

**Category D:** Speed 141 knots or more, but less than 166 knots.

**Category E:** Speed greater than 166 knots.

The airplane design group (ADG) is based upon the aircraft's wingspan. The six ADG's used in airport planning are as follows:

**Group I:** Up to but not including 49 feet.

**Group II:** 49 feet up to but not including 79 feet.

**Group III:** 79 feet up to but not including 118 feet.

**Group IV:** 118 feet up to but not including 171 feet.

**Group V:** 171 feet up to but not including 214 feet.

**Group VI:** 214 feet or greater.

In order to determine facility requirements, an ARC should first be determined, then appropriate airport design criteria can be applied. This begins with a review of the type of aircraft using and expected to use Scappoose Industrial Airpark. **Exhibit 3A** summarizes representative aircraft by ARC.

The FAA recommends designing airport functional elements to meet the requirements of the most demanding ARC for that airport. Scappoose Industrial Airpark currently accommodates a wide variety of civilian aircraft use. Aircraft using the airport include small single and multi-engine aircraft, as well as small business jets. The majority of these aircraft fall within approach categories A and B and airplane design groups I and II.

As determined by the fleet mix forecast in Chapter Two, continued service by prop-jet aircraft is expected to continue throughout the planning period. The addition of the regional jet into the fleet

mix is also possible, considering the recent trend of regional/commuter airlines' transition towards advanced turboprop aircraft and small regional jets to fit their respective market needs. This potential mix of aircraft will continue to place the airport in the B-II category.

## **AIRFIELD DESIGN STANDARDS**

The FAA has established several imaginary surfaces to protect aircraft operational areas and keep them free from obstructions that could affect the safe operation of aircraft. These include the obstacle free zone (OFZ), runway safety area (RSA), and runway protection zones (RPZ).

The RSA is "a defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or an excursion from the runway." An obstacle free zone is a volume of airspace that is required to be clear of objects, except for frangible items required for navigation of aircraft. It is centered along the runway and extended runway centerline. The RPZ is defined as an area off the runway end to enhance the protection of people and property on the ground. The RPZ is trapezoidal in shape and centered about the extended runway centerline. The dimensions of an RPZ are a function of the runway ARC and approach visibility minimums.

**Table 3B** summarizes the design requirements of these safety areas by airport reference code for Scappoose

Industrial Airpark. The FAA expects these areas to be free from obstructions. As shown in the table, the airport currently meets the required dimensions for ARC B-II standards. A printout of the ARC B-II standards is presented in the appendix.

## **RUNWAYS**


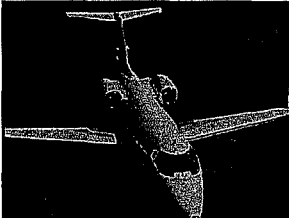
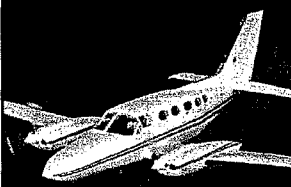
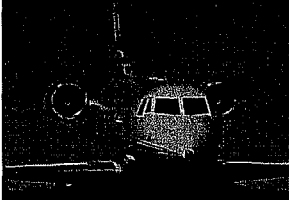


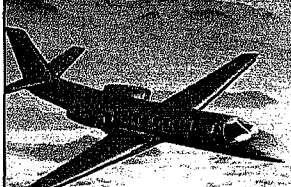
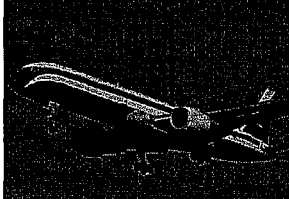
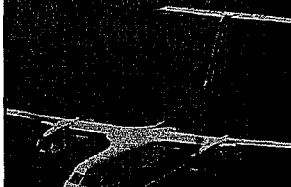
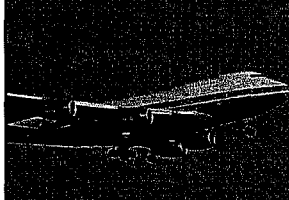
The adequacy of the existing runway system at Scappoose Industrial Airpark was analyzed from a number of perspectives, including airfield capacity, runway orientation, runway length, runway width, and pavement strength. From this information, requirements for runway improvements were determined for the airport.

### **Airfield Capacity**

A demand/capacity analysis measures the capacity of the airfield configuration in order to identify and plan for additional development needs. Annual capacity of a single runway configuration normally exceeds 150,000 operations with a suitable parallel taxiway available. Since the forecasts for Scappoose Industrial Airpark remain below 150,000 operations, the capacity of the existing runway and taxiway system will not be reached, and the airfield will be able to meet operational demands.

### **Runway Orientation**

Scappoose Industrial Airpark is equipped with a single runway (Runway

 <p><b>A-I</b></p>	<p>Beech Baron 55  <b>Beech Bonanza</b>            Cessna 150            Cessna 172            Piper Archer            Piper Seneca</p>	 <p><b>C-I, D-I</b></p>	<p>Lear 25, 35, 55            Israeli Westwind            HS 125</p>
 <p><b>B-I</b>            less than 12,500 lbs.</p>	<p>Beech Baron 58            Beech King Air 100            Cessna 402  <b>Cessna 421</b>            Piper Navajo            Piper Cheyenne            Swearingen Metroliner            Cessna Citation I</p>	 <p><b>C-II, D-II</b></p>	<p><b>Gulfstream II, III, IV</b>            Canadair 600            Canadair Regional Jet            Lockheed JetStar            Super King Air 350</p>
 <p><b>B-II</b>            less than 12,500 lbs.</p>	<p><b>Super King Air 200</b>            Cessna 441            DHC Twin Otter</p>	 <p><b>C-III, D-III</b></p>	<p>Boeing Business Jet            B 727-200  <b>B 737-300 Series</b>            MD-80, DC-9            Fokker 70, 100            A319, A320            Gulfstream V            Global Express</p>
 <p><b>B-I, II</b>            over 12,500 lbs.</p>	<p>Super King Air 300            Beech 1900            Jetstream 31            Falcon 10, 20, 50            Falcon 200, 900  <b>Citation II, III, IV, V</b>            Saab 340            Embraer 120</p>	 <p><b>C-IV, D-IV</b></p>	<p><b>B-757</b>            B-767            DC-8-70            DC-10            MD-11            L1011</p>
 <p><b>A-III, B-III</b></p>	<p>DHC Dash 7  <b>DHC Dash 8</b>            DC-3            Convair 580            Fairchild F-27            ATR 72            ATP</p>	 <p><b>D-V</b></p>	<p><b>B-747 Series</b>            B-777</p>

Note: Aircraft pictured is identified in bold type.



15-33), which is oriented in a north-south direction. For the operational safety and efficiency of an airport, it is desirable for the principal runway of an airport's runway system to be oriented

as close as possible to the direction of the prevailing wind. This reduces the impact of crosswind components during landing or takeoff.

<b>TABLE 3B</b>		
<b>Airfield Safety Area Dimensional Standards (feet)</b>		
	<b>DIMENSIONS AT SCAPPOOSE</b>	<b>ARC B-II STANDARDS</b>
<b>Runway Safety Area (RSA)</b>		
Width	150	150
Length Beyond Runway End	300	300
<b>Runway Object Free Area (OFA)</b>		
Width	500	500
Length Beyond Runway End	300	300
<b>Runway Obstacle Free Zone (OFZ)</b>		
Width	500	400
Length Beyond Runway End	200	200
<b>Runway Protection Zone (RPZ)</b>		
Inner Width	500	500
Outer Width	700	700
Length	1,000	1,000
Source: FAA Airport Design Computer Program Version 4.2D.		

FAA design standards recommend additional runway configurations when the primary runway configuration provides less than 95 percent wind coverage at specific crosswind components. The 95 percent wind coverage is computed on the basis of crosswinds not exceeding 10.5 knots for small aircraft weighing less than 12,500 pounds and from 13 to 20 knots for aircraft weighing over 12,500 pounds.

No wind data was available for Scappoose Industrial Airpark. However, the Airport Layout Plan notes

that winds at the airport generally follow the runway alignment, with northerly and southerly winds occurring with approximately equal frequency.

### **Runway Length**

The runway length requirements for an airport are based on five primary factors: airport elevation; mean maximum temperature of the hottest month; runway gradient (difference in runway elevation of each runway end); critical aircraft type expected to use the

airport; and stage length of the longest nonstop trip destination. Aircraft performance declines as each of these factors increase. Summertime temperatures and stage lengths are the primary factors in determining runway length requirements.

The local airport elevation is 58 feet above mean sea level (MSL) and the mean maximum temperature of the hottest month is 82 degrees Fahrenheit (F). Runway end elevations vary by approximately 28 feet along Runway 15-33.

The FAA's design software (Version 4.2D) was used to verify runway length requirements, which are summarized in **Table 3C**. As shown in the table, the FAA recommends a minimum runway length of 4,130 feet for small aircraft (less than 12,500 pounds) and 4,880 feet for larger aircraft using the facility. The current runway length of 5,100 feet accommodates most small business jets operating at Scappoose Industrial Airpark. The alternative evaluation will not consider additional runway length for the existing or forecast fleet mix.

<b>TABLE 3C</b>	
<b>Runway Lengths, FAA Design Software</b>	
Airport elevation .....	58 feet
Mean daily maximum temperature of the hottest month .....	82 F
Maximum difference in runway centerline elevation .....	28 feet
<b>RUNWAY LENGTHS RECOMMENDED FOR AIRPORT DESIGN</b>	
Small airplanes with less than 10 passenger seats	
75 percent of these small airplanes .....	2,440 feet
95 percent of these small airplanes .....	3,000 feet
100 percent of these small airplanes .....	3,550 feet
Small airplanes with more than 10 passenger seats .....	4,130 feet
Large airplanes of 60,000 pounds or less	
75 percent of these large airplanes at 60 percent useful load .....	4,880 feet
Source: FAA Airport Design Computer Program Version 4.2D.	

**Runway Width**

The width of the existing runway was also examined to determine the need for facility improvements. The current width of Runway 15-33 is 100 feet. This exceeds the 75-foot standard for a B-II nonprecision instrument runway, which

is the current and future ARC for Scappoose Industrial Airpark.

**Runway Pavement Strength**

The most important feature of airfield pavement is its ability to withstand



repeated use by aircraft of significant weight. The current strength rating on Runway 15-33 is 30,000 pounds single wheel loading (SWL) or 50,000 pounds dual wheel loading (DWL). The current strength ratings on Runway 15-33 are sufficient for the existing and future fleet. Over 45 percent of all business jets in the current fleet fall within the B-II category and can be accommodated on the current pavement.

## **TAXIWAYS**

Taxiways are constructed primarily to facilitate aircraft movements to and from the runway system. Some taxiways are necessary simply to provide access between the aprons and the runways, whereas other taxiways become necessary as activity increases at an airport to provide safe and efficient use of the airfield.

Taxiway width is determined by the ADG of the most demanding aircraft to use the taxiway. As previously mentioned, the most demanding aircraft to use the airfield fall within ADG II. According to FAA design standards, the minimum taxiway width for ADG II is 35 feet. Based upon a review of the current airport layout drawing, all taxiways at Scappoose Industrial Airpark are 35 feet or greater, which will be sufficient through the planning period.

The runway-taxiway separation distance was also examined. This distance is such to satisfy the requirement that no part of an aircraft (tail tip, wing tip) on the

taxiway/taxilane centerline is within the runway safety area or penetrates the obstacle free zone (OFZ). According to the Airport Layout Plan, there are no OFZ object penetrations on the airport at this time. The current distances between the runway centerline and the east and west taxiway centerlines are 240 feet and 225 feet, respectively. The required distance for ARC B-II is 240 feet.

## **NAVIGATIONAL AND APPROACH AIDS**

Electronic and visual guidance to arriving aircraft enhance the safety and capacity of the airfield. Such facilities are vital to the success of the airport, and provide additional safety to passengers using the air transportation system.

Instrument approaches are categorized as either precision or nonprecision. Precision instrument approach aids provide an exact alignment and descent path for an aircraft on final approach to a runway, while nonprecision instrument approach aids provide only runway alignment information. Most existing precision instrument approaches in the United States are instrument landing systems (ILS).

Presently, Scappoose Industrial Airpark is served with two instrument approaches: LOC/DME Runway 15 (either straight-in or circling) and VOR/DME or GPS-A (circling only). A localizer (LOC) transmits two radio beams on either side of, and overlapping, the extended runway



centerline for horizontal guidance. A VOR provides azimuth readings to pilots of properly equipped aircraft by transmitting a signal at every degree to provide 360 individual navigational courses. Frequently, distance measuring equipment (DME) is combined with a VOR facility to provide distance as well as direction information to the pilot.

The LOC/DME approach to Runway 15 provides the airport with the lowest minimums, allowing aircraft to land in instrument flight rules (IFR) weather with ceilings as low as 500 feet and visibility reduced to one mile for aircraft with approach speeds of less than 91 knots. For aircraft with approach speeds greater than 120 knots the visibility restriction increases to one and one-fourth miles.

The advent of technology has been one of the most important contributing factors in the growth of the aviation industry. Much of civil aviation and aerospace technology has been derived and enhanced from the initial development of technological improvements for military purposes. The use of orbiting satellites to confirm an aircraft's location is the latest military development to be made available to the civil aviation community.

The FAA has already approved the publication of thousands of "overlay" GPS instrument approach procedures. Stand-alone GPS approaches using the Wide-Area Augmentation System (WAAS) will gradually be phased in to

provide precision instrument approaches. Current FAA guidance has been included in the appendix.

## **AIRFIELD MARKING, LIGHTING, AND SIGNAGE**

Airports commonly include a variety of lighting and pavement markings to assist pilots utilizing the airport. These lighting systems and marking aids are used to assist pilots in locating the airport during the day, at night, during poor weather conditions, and assisting in the ground movement of aircraft.

### **Pavement Markings**

Runway markings are designed according to the type of instrument approach available on the runway. FAA Advisory Circular 150/5340-1H, *Marking of Paved Areas on Airports*, provides the guidance necessary to design airport markings. Runway 15-33 has the necessary markings for the GPS approach serving the runway. The markings on this runway will suffice throughout the planning period.

Taxiway and apron areas also require marking. Yellow centerline stripes are currently painted on all taxiway surfaces at the airport to provide this guidance to pilots. The paved aircraft parking aprons also have centerline markings to indicate the alignment of taxilanes within these areas. Besides routine maintenance of the taxiway striping, these markings will be sufficient through the planning period.

## **Airfield Lighting**

Airport lighting systems provide critical guidance to pilots during nighttime and low visibility operations. Runway 15-33 is equipped with medium intensity runway lighting (MIRL), which will be adequate throughout the planning period.

Effective ground movement of aircraft at night is enhanced by the availability of taxiway lighting. Currently, blue reflectors are installed on all taxiways and taxilanes. Taxiways should be planned for medium intensity edge lighting.

## **Visual Approach Lighting**

In most instances, the landing phase of any flight must be conducted in visual conditions. To provide pilots with visual guidance information during landings to the runway, electronic visual approach aids are commonly provided at airports. Currently, Runway 15-33 is equipped with a four-light precision approach path indicator (PAPI-4) system on the left hand side of both ends of the runway. This will be sufficient through the planning period.

Runway end identifier lights (REILs) are flashing lights that facilitate identification of the runway end. Runway 15 is the only runway presently equipped with REILs. Consideration should be given to the addition of REILs on Runway 33.

## **Airfield Signage**

Airfield signage provides another means of notifying pilots as to their location on the airport. A system of signs placed at several airfield intersections on the airport is the best method available to provide this guidance. Signs located at intersections of taxiways provide crucial information to avoid conflicts between moving aircraft. Directional signage instructs pilots as to the location of taxiways and terminal aprons. At Scappoose Industrial Airpark, lighted signs are installed at all taxiway and runway intersections.

## ***LANDSIDE REQUIREMENTS***

Landside facilities are those necessary for handling aircraft, passengers, and freight while on the ground. These facilities provide the essential interface between the air and ground transportation modes. The capacities of the various components of each area were examined in relation to projected demand to identify future landside facility needs.

The purpose of this section is to determine the landside space requirements for general aviation hangar and apron parking facilities during the planning period. In addition, the total surface area needed to accommodate general aviation activities throughout the planning period is estimated.

## HANGARS

Utilization of hangar space varies as a function of local climate, security, and owner preferences. The trend in general aviation aircraft, whether single or multi-engine, is towards more sophisticated (and, consequently, more expensive) aircraft. Therefore, many aircraft owners prefer enclosed hangar space to outside tie-downs.

The demand for aircraft storage hangars is dependent upon the number and type of aircraft expected to be based at the airport in the future. For planning purposes, it is necessary to estimate hangar requirements based upon forecast operational activity. However, hangar development should be based upon actual demand trends and financial investment conditions. While a majority of aircraft owners prefer enclosed aircraft storage, a number of based aircraft will still tie-down outside (due to the lack of hangar availability, hangar rental rates, and/or operational needs). Therefore, enclosed hangar facilities should not be planned for each based aircraft. At Scappoose Industrial Airpark, approximately 93 percent of the based aircraft are currently stored in enclosed hangar facilities. In the future, it is estimated that the percentage of based aircraft stored in hangars will remain near this percent.

Approximately 90 percent of hangared aircraft at Scappoose Industrial Airpark are currently stored in T-hangars. The majority of aircraft stored in these

hangars are single-engine. A planning standard of 1,200 square feet per based aircraft stored in T-hangars has been used to determine future T-hangar requirements.

Approximately five percent of hangared aircraft are stored in conventional hangars, while the remaining five percent are stored in executive hangars. Each of these types of hangars are designed for multiple aircraft storage. Executive hangars are generally less than 10,000 square feet, while conventional hangars are generally greater than 10,000 square feet.

As the trend towards more sophisticated aircraft continues throughout the planning period, it is important to determine the need for more conventional and executive hangars. For conventional and executive hangars, a planning standard of 1,200 square feet was used for single-engine aircraft, while a planning standard of 3,000 square feet was used for multi-engines, jets, and helicopters. These planning standards recognize that some of the larger business jets require a greater amount of space. Since portions of conventional hangars are also used for aircraft maintenance and servicing, requirements for maintenance/service hangar area were estimated using a planning standard of approximately 15 percent of the total hangar space needs. Future hangar requirements for the airport are summarized in **Table 3D**, which indicates additional T-hangar space is required in the short-term.

**TABLE 3D**  
**Aircraft Storage Requirements**  
**Scappoose Industrial Airpark**

	Future Requirements				
	Currently Available	Current Need	Short-Term	Intermediate Term	Long-Term
<b>Aircraft to be Hangared</b>		130	144	158	181
T-hangar Positions		120	128	138	152
Executive Hangar Positions		5	8	9	13
Conventional Hangar Positions		5	8	11	16
<b>Hangar Area Requirements (s.f.)</b>					
T-hangar Area	129,900	141,600	149,000	160,100	176,000
Executive Hangar Area	31,200	13,200	20,400	21,600	30,000
Conventional Hangar Area	40,800	12,000	20,400	27,600	40,800
Total Maintenance Area	30,300	26,000	28,500	31,400	37,000
<b>Total Hangar Area (s.f.)</b>	<b>232,200</b>	<b>192,800</b>	<b>218,300</b>	<b>240,700</b>	<b>284,300</b>

### AIRCRAFT PARKING APRON

A parking apron should provide for the number of locally-based aircraft that are not stored in hangars, and for those aircraft used for air taxi and training activity. Parking should be provided for itinerant aircraft as well. As mentioned in the previous section, 93 percent of based aircraft at Scappoose Industrial Airpark are currently stored in hangars, and that percentage is expected to continue throughout the planning period.

For planning purposes, 15 percent of the based aircraft total will be used to determine the parking apron requirements of local aircraft, due to some aircraft requiring both hangar storage and parking apron. Since the majority of locally-based aircraft are stored in hangars, the area requirement for parking of locally-based aircraft is smaller than for transient aircraft.

Therefore, a planning criterion of 650 square yards per aircraft was used to determine the apron requirements for local aircraft.

Along with based aircraft parking needs, transient aircraft parking needs must also be considered when determining apron requirements. A planning criterion of 800 square yards was used for single and multi-engine itinerant aircraft, and 1,600 square yards for itinerant jets. Current apron area at Scappoose Industrial Airpark includes two paved aprons totaling approximately 13,300 square yards and 40 tie-downs. These two aprons are for both based and transient aircraft. Additional aircraft parking is provided in a turf parking area, which is located west of the Runway 15 end and provides parking for approximately 20 aircraft. The turf parking area has been included as part of the current available apron space and tie-down positions.

Total aircraft parking apron requirements are presented in **Table 3E**. According to the table, while no additional tie-down positions will be required until the intermediate term,

additional apron area is required in the short-term. This is due to planning standards requiring more square yards per aircraft than current standards.

<b>TABLE 3E</b>				
<b>Aircraft Parking Apron Requirements</b>				
<b>Scappoose Industrial Airpark</b>				
	<b>Currently Available</b>	<b>Short-Term</b>	<b>Intermediate Term</b>	<b>Long-Term</b>
Single, Multi-Engine Transient Aircraft Positions Apron Area (s.y.)		30 24,000	34 27,200	40 32,000
Transient Jet Aircraft Positions Apron Area (s.y.)		5 8,000	6 9,600	7 11,200
Locally-Based Aircraft Positions Apron Area (s.y.)		23 14,950	26 16,900	29 18,850
Total Positions	60	58	66	76
Total Apron Area (s.y.)	20,000	46,950	53,700	62,050

## **VEHICLE PARKING**

The airport currently maintains one parking lot, which provides approximately 20,000 square feet of space. Limited parking is also provided next to Transwestern. Vehicular parking demands have been determined based on an evaluation of the existing airport use, as well as industry standards, which consider one-half of based aircraft at the airport will require a parking space. As shown in **Table 3F**, additional parking area will be required at Scappoose Industrial Airpark through the planning period.

## **SUPPORT REQUIREMENTS**

Various facilities that do not logically fall within classifications of airfield, terminal building, or general aviation areas have also been identified. These other areas provide certain functions related to the overall operation of the airport, and include: aircraft rescue and firefighting, fuel storage, and airport maintenance facilities.

**TABLE 3F**  
**Vehicle Parking Requirements**  
**Scappoose Industrial Airpark**

	Available	Future Requirements		
		Short-Term	Intermediate Term	Long-Term
Design Hour Passengers		28	31	37
Terminal Vehicle Spaces		37	41	48
Parking Area (s.f.)		14,600	16,400	19,400
General Aviation Spaces		78	85	98
Parking Area (s.f.)		31,000	34,000	39,000
Total Parking Spaces	N/A	114	126	146
Total Parking Area (s.f.)	20,000	45,600	50,400	58,400

**AIRCRAFT RESCUE AND FIREFIGHTING**

There are no aircraft rescue and firefighting (ARFF) facilities located at Scappoose Industrial Airpark. ARFF services are the responsibility of the Scappoose Rural Fire Protection District, a combination of career and volunteer firefighters. This station is located on Highway 30, approximately two miles from the airport.

**AIRPORT MAINTENANCE/STORAGE FACILITIES**

Current storage facilities at Scappoose Industrial Airpark include a small storage shed located next to the airport beacon. Additional storage is provided by the executive and conventional hangars. Adequate area needs to be reserved for expansion of these facilities.

**FUEL STORAGE**

Scappoose Industrial Airpark has two fuel farms; both located next to Transwestern. Storage facilities include two underground fuel tanks with a capacity of 10,310 gallons of 100 LL fuel and Jet A fuel each. Area should be reserved to allow for expansion of the fuel farm, should their demands change throughout the planning period. Planning standards usually recommend a two-week minimum supply.

**AIRPORT DEVELOPMENT ALTERNATIVES**

Once airside and landside facility needs have been identified for the planning period, the next step is to evaluate the various ways these facilities can be provided. While the possibilities of alternatives can be numerous, only

those which have the greatest potential for implementation are identified. The alternatives analysis is an important step in the planning process since it provides the underlying rationale for the final master plan recommendations. Following a review of the airport development alternatives with the Planning Advisory Committee (PAC) and the Port of St. Helens, a final master plan concept will be recommended.

## **BACKGROUND**

Prior to presenting airport development alternatives, it is helpful to review some of the previous airport planning efforts and the development that has occurred during the intervening years. Recounting recent or ongoing improvements will assist with the identification of current issues affecting future development options. Recommendations included in the *1994 Airport Layout Plan Update* included:

- Purchasing land on both sides of the runway to a depth of approximately 900 feet on either side of the runway centerline in order to provide additional land for the necessary facilities. (Underway on the east side.)
- Upgrade of airport height restriction zones within the City of Scappoose and Columbia County.
- Acquisition of aviation easements within the areas of the FAR Part 77 approach surface (up the elevation of the horizontal surface).

- Establishment of an Airport Impact Overlay Zone one mile around the airport, which would require a seller to disclose to a potential buyer that the property is within one mile of the airport.

## **AIRFIELD ALTERNATIVES**

Because airfield facilities physically dominate a great deal of the airport's property, airfield facility needs are often the most critical factor in the determination of viable airport development alternatives. The runway system, in particular, requires the greatest commitment of land area and often imparts the greatest influence on the identification and development of other airport facilities. In addition, FAA design criteria must be considered when looking at airfield improvements. These criteria, depending upon the areas around the airport, can often have a significant impact on the availability of various alternatives which are designed to meet airfield needs.

### **Runway**

The facility needs evaluation, which was completed earlier in this chapter, indicates that the runway's current length of 5,100 feet is sufficient throughout the planning period and will not consider additional runway length for the existing or forecast fleet mix. As previously mentioned, wind coverage at the airport on the runway meets the FAA's recommended 95 percent coverage and does not justify a crosswind runway.

## Taxiways

Taxiways are primarily constructed to facilitate aircraft movements to and from the runway system. The availability of entrance and exit taxiways can affect the overall efficiency of the airfield. Taxiway improvements should include consideration of additional entrance and exit taxiways to provide access to future landside facilities on both sides of the runway. These potential taxiways are identified on **Exhibit 3B**.

## LANDSIDE ALTERNATIVES

Landside facilities are those necessary for handling aircraft, passengers, and freight while on the ground. These facilities provide the essential interface between the air and ground transportation modes. The capacities of the various components of each area were examined in relation to projected demand to identify future landside facility needs.

Existing general aviation facilities at Scappoose Industrial Airpark were examined earlier in this chapter. The existing twelve T-hangar buildings at the airport provide storage for a total of 115 aircraft. Currently, there are no vacant T-hangars available at the airport and the conventional hangars are also at maximum capacity, which indicates the need to examine the potential for short-term facility development. This development will likely need to take place in phases throughout the planning period.

Available land for immediate development is limited at this time. The Port plans to construct a 16-unit hangar facility on the west side of the airport in 2004. One area, which consists of approximately six units, remains on the west side and is available for development. In addition, the Port of St. Helens has executed a Memorandum of Purchase and Sale Agreement for ±400 acres on the east side of the runway. Approximately 60 acres of this property will be dedicated for airport development. The acquisition of this property will allow adequate space to construct new hangar facilities to meet the projected demand through the planning period.

To accommodate future demand in a smooth and orderly progression, a series of developments will need to take place in stages throughout the planning period. **Exhibit 3B** depicts the three stages of proposed landside development. The first stage involves the construction of two rows of additional T-hangars on the east side of the runway to meet the short-term demand levels.

However, some existing facilities will first need to be removed in order to develop the proposed layout. It should also be noted that a 4,500 square-foot shed hangar and a 13,200 square-foot T-hangar may also need to be removed/relocated. According to the *Airport Layout Plan* (October 2001), these two hangars lie within the BRL, which is 400 feet from the runway centerline. These two hangars are shown on **Exhibit 3B**. The BRL can be



defined as a line which identifies suitable building area locations on the airport. The BRL should encompass the runway protection zones, the runway object free area, the runway visibility zone (an area formed by imaginary lines connecting the two runways' visibility points), NAVAID critical areas, areas required for terminal instrument procedures, and airport traffic control tower clear line-of-sight.

The initial hangars (10-units each) will be developed on the north end of the east side (where the existing facilities are to be removed) and be configured parallel to the runway. The dimensions of these hangars will remain consistent with the existing hangars (10,000 square feet each).

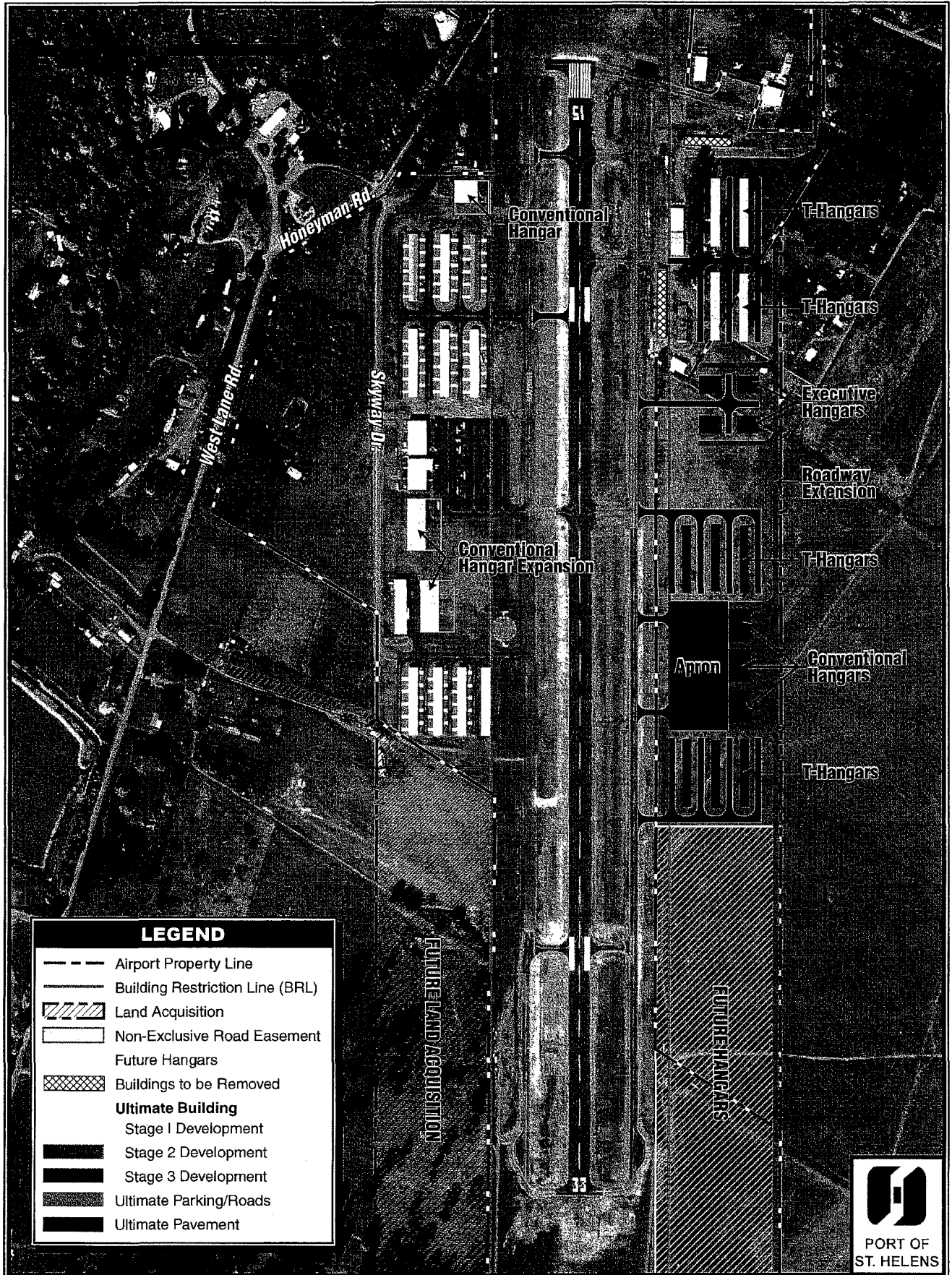
The second stage of development will involve the construction of additional executive hangars on the east side of the runway (approximately 8,000 square feet each), as well as an additional conventional hangar on the west side of the runway (approximately 17,600 square feet). These proposed hangars will provide additional aircraft storage as well as additional maintenance area to meet the projected demand levels. The executive and conventional hangars could also be leased to corporate operators. This stage of development will also involve the construction of an additional row of 10-unit T-hangars along the east side of the runway (south of the proposed executive hangars). Remaining consistent with existing T-hangar dimensions, these proposed hangars will also be built to a standard of 10,000

square feet each and parallel to the runway.

The final stage of development, which will take place during the last ten years of the planning period, proposes an additional row of 10-unit hangars along the east side of the runway (south of the proposed conventional hangars and apron area). Remaining consistent with existing T-hangar dimensions, these proposed hangars will also be built to a standard of 10,000 square feet each and parallel to the runway. This stage of development also proposes additional conventional hangars and a possible fixed base operator (FBO) (approximately 15,000 square feet each) on the east side of the runway. An apron area with tie-downs would also be added to accommodate the proposed hangars.

While the proposed hangar developments for Scappoose Industrial Airpark exceed the projected demand in the long term, additional factors were considered. For instance, the selected forecast, which was a mid-range forecast, assumes 195 based aircraft by the end of the planning period. However, the high end of projected based aircraft was also examined and yields as many as 309 based aircraft by the end of the planning period, which would warrant additional aircraft storage.

Along with the development of the proposed facilities will be the need for roadway access to these facilities. Currently, there is no perimeter roadway utility/infrastructure access to



LEGEND	
	Airport Property Line
	Building Restriction Line (BRL)
	Land Acquisition
	Non-Exclusive Road Easement
	Future Hangars
	Buildings to be Removed
	<b>Ultimate Building</b>
	Stage 1 Development
	Stage 2 Development
	Stage 3 Development
	Ultimate Parking/Roads
	Ultimate Pavement



the southern two-thirds of the airport on the east side or to the southern half of the airport on the west side. **Exhibit 3B** depicts the roadways and taxiways necessary to access the proposed facilities.

## ***INDUSTRIAL BUSINESS PARK***

Immediately adjacent to Scappoose Industrial Airpark, the Port of St. Helens owns approximately 20 acres of land that has been identified as having potential for expanded business development. This property is zoned Light Industrial (LI) and is outside of FAA-regulated areas of the Airpark, which allows for a mixture of light manufacturing and industrial development as a conditional use. Access to this site is currently provided by Honeyman Road from the northwest and by West Lane Road from the southeast. West Lane Road can also be accessed from the southwest via Highway 30.

A Master Plan for Scappoose Airpark's Industrial Business Park was completed by CIDA in April 2001 and outlined a number of alternatives. The selected plan ( Plan G), which was accepted by the Board of Commissioners and the Port of St. Helens, is outlined in the following paragraphs.

As shown on **Exhibit 3C**, Plan G proposes a number of buildings for industrial use while emphasizing a north-south automobile access through the Business Park to provide improved separation between automobiles and

aircraft along the east boundary. This plan also recommends the complete removal of Skyway Drive in order to allow for direct access to the Business Park.

The proposed building in this plan may also be shifted in order to provide additional space, if needed, for multiple and/or larger aircraft access and maneuverability. For example, A and B may be sited further apart (by removing parking surrounding each building) in order to provide additional maneuvering space between them. Similarly, building D may also be sited further to the north. Also, each building may be decreased in width (from approximately 100 feet to 60 or 80 feet wide). However, while a narrower building may work well for airplane maintenance, industry standards dictate an 80 to 100-foot wide building as a potential long term phased industrial development investment.

Another option for providing adequate access/maneuvering space for aircraft will be to develop buildings A and C, while omitting building B. This would provide for a maximum amount of aircraft maneuvering/access space in the short term while preserving building B's lot for development in the future. Similarly, building E could be developed while building D is omitted.

## ***SUMMARY***

The intent of this chapter has been to outline the facilities required to meet potential aviation demands projected for the airport through the planning

horizon and assess the airside and landside development alternatives. This process involved a detailed analysis of short and long term requirements as well as future growth potential. Current airport design standards were considered at each stage of development.

Upon review of this report by the Planning Advisory Committee (PAC), the public, and Port officials, a final master plan concept can be formed. The resultant plan will represent an airside facility that fulfills safety and design standards and a landside complex that can be developed as demand dictates.

The proposed development plan for the airport must represent a means by which the airport can grow in a balanced manner, both on the airside as well as the landside, to accommodate forecast demand. In addition, it must provide (as all good development plans should) for flexibility in the plan to meet activity growth beyond the long term planning period. The remaining chapters will be dedicated to refining the basic concept into a final plan with recommendations to ensure proper implementation and timing for a demand-based program.

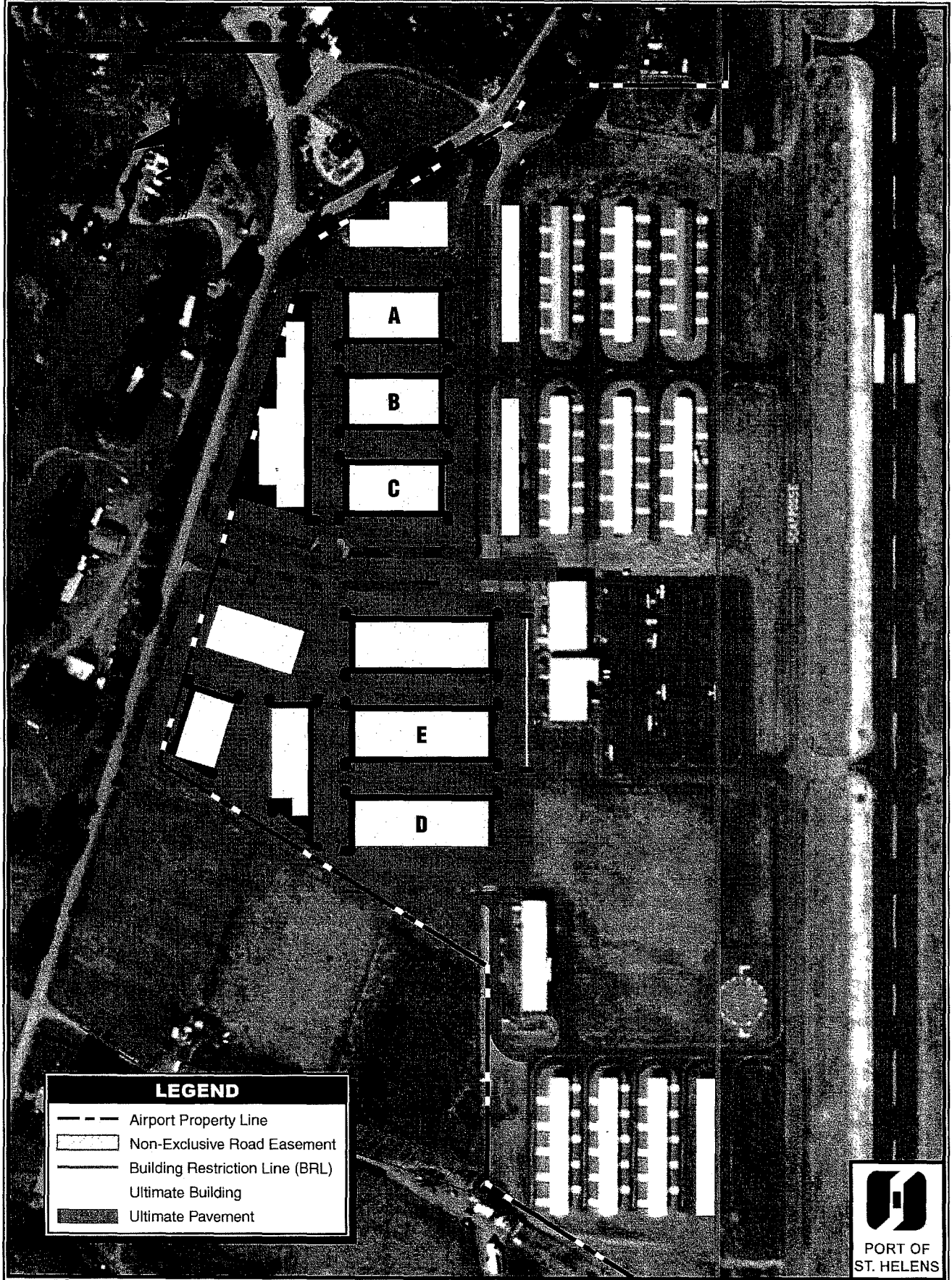


Exhibit 3C  
SCAPPOOSE INDUSTRIAL  
BUSINESS PARK (PLAN G)



PORT OF  
ST. HELENS

## Chapter Four **AIRPORT PLANS**

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# AIRPORT PLANS

## INTRODUCTION

The airport plans are one of the last steps in developing a master plan. They are a pictorial representation and summarization of the efforts made in the master planning process. The previous chapters on Inventory, Forecasting, and Facility Requirements/ Alternatives and the reviews provided by the Planning Advisory Committee (PAC) supply the basis for the existing and future airport layouts that are shown in the airport layout drawings. As was previously discussed, the development at an airport should rely more on actual demand rather than a time-based forecast. The development shown in the airport plans reflects planned development, but the course and timing of this development must be carried forward as airport

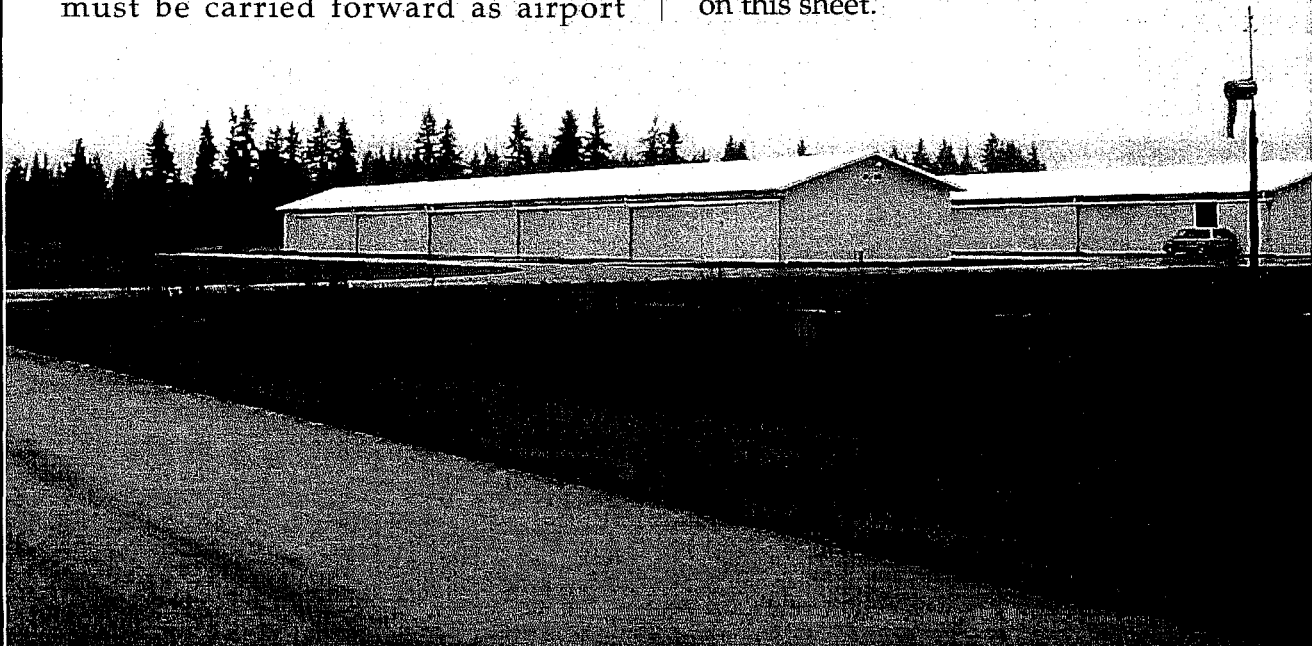
activity demands rather than in the exact form it has been presented.

The basemapping developed for the previous master plan airport layout drawings was used for this updated set of drawings. An aerial photo of the airport is also used as a basemap when appropriate.

## AIRPORT LAYOUT DRAWINGS

### COVER SHEET

The cover sheet shows both the location and the vicinity map for the Scappoose Industrial Airpark. A sheet index to the master plan drawings is also provided on this sheet.



## AIRPORT LAYOUT PLAN

The airport layout plan depicts the current airport layout and the proposed improvements to the airport for the 20-year planning period. The list of improvements and costs over the next 20-years are also shown in the Capital Improvements Projects (CIP) at the end of this chapter. As previously mentioned, the needs defined in the Facility Requirements/ Alternatives (Chapter 3) and the reviews provided by the PAC were the basis for determining the proposed improvements at the Scappoose Industrial Airpark. The future airport development is shown on the airport layout plan as required by the FAA. The plan can be modified to accommodate development as dictated by demand.

One of the primary focuses for future improvements at the airport is continued expansion of the hangar areas. Proposed property acquisition on both the west and east sides of the airport allow for a significant amount of growth at the airport. This growth will occur in stages over the next 20 years and beyond. The process of new hangar construction will begin in 2004, with the east side property acquisition. Several parcels on the east side could be acquired should they become available for purchase. This would allow the construction of additional hangars as outlined in Alternative 3B.

A new FBO hangar is planned for construction in 2004 which will have associated apron, vehicle parking and fencing improvements. Initial construction to prepare this FBO devel-

opment area for use will occur just prior to the hangar construction. Also, in 2004, a new hangar will be constructed on the west side of the airfield, adjacent to Skyway Drive. In 2005, a new taxilane will be constructed on the west side of the airfield adjacent to the Oregon Aero hangar. In 2006, taxiway and taxilane construction is scheduled for the northeast corner of the airfield, along with the construction of a hangar on the west side on the airfield. Another hangar will be constructed on the east side in 2007. The hangar construction will continue throughout the 20-year planning period with conventional and executive hangars being developed on the east side of the airport with associated access road and taxilane construction. This development is presented in detail on the Airport Layout Plan and includes property acquisition and access road, utility, taxilane and apron construction.

In addition to the taxilane and hangar development, a number of other improvements are planned for the airport over the 20-year planning period. In 2004, fencing improvements and aviation easement acquisition are slated to occur, along with construction of a new hangar in the northwest corner of the airport property. Building demolition on the northeast side is scheduled for 2005, along with obstruction removal. Airfield pavement maintenance improvements are planned for the years 2005 and 2008. These improvements incorporate the slurry seals, fog seals, striping maintenance, overlays and pavement rehabilitation recommended by PCI into



the Oregon Department of Aviation pavement maintenance program. Oregon Aero plans to expand their hangar space during the early years of the planning period. This expansion is shown on the capital improvement program for 2005. Taxiway lighting on the east side parallel taxiway, is planned for 2006. Sherpa Aircraft is also planning construction of a new hangar and an additional hangar will be constructed on the west side of the airport, which is shown on the plan for the year 2006. In 2007, pavement marking maintenance is scheduled to occur on all taxilanes and taxiways on the west side of the airfield, along with some additional security fencing.

The Port is proposing development of a 20-acre parcel of land just west of Skyway Drive. The development of the Airport Industrial Business Park would include aviation-related business, light manufacturing and industrial development and would likely occur throughout all three stages of the of the 20-year improvement program. The land for the business park is on airport property and would have access to the airfield. The CIDA report analyzed seven layout alternatives, and the preferred alternative, Master Plan G, is shown on the ALP. The final development alternative is pending FAA approval. The build out of the business park is slated to occur over the next 20 years as demand dictates. Prior to, or in conjunction with the construction of the business park, access improvements will need to be made for the development. The County has stated that the development will require improvements of the

intersection of Skyway Drive and Honeyman Road and widening of West Lane Road at least along the development frontage. The County is also concerned with the impact of traffic as West Lane Road enters into Scappoose to the south of the airport, but has not given any indication of required improvements at that location. The primary access to the development is planned off of West Lane Road, through the center of the business park. Access improvements to the site are shown on the ALP and in the CIP under the title of Industrial Business Park Roadway Package for construction in 2005 and 2006. This represents the cost for the primary access improvements and the widening of West Lane Road as presented in the CIDA report. These costs could be shared between the Port, the County and the developer and include the utility improvements in the roadway. Improvements to the intersection of Honeyman Road and Sky Drive are not included because the improvements and costs are unknown at this time. The Port and County need to further develop the required improvements at this intersection.

In addition to the roadway improvements, utility improvements are needed for the development. All utilities needed are available with the exception of gas and sanitary sewer. The sanitary sewer line will need to be extended from approximately 1 mile away (at the intersection of West Lane Road and Forest/Crown Z Road) up to the site. This improvement is shown for 2006. The business park will need a gas line to replace the propane tanks

currently used. Discussions will take place between the Port and Northwest Natural Gas on how to extend service to the site. Costs for this extension are unknown and therefore not listed in the CIP.

During the Stage II planning period, years 2009 through 2013, property acquisition is planned for the property on the west side of the airport. Existing farm buildings will be removed after this property acquisition is made to allow for development of the property. Also, the parallel taxiway on the west side of the airport will be shifted 15 feet to the west to meet the B-II separation standard. Some fencing and the segmented circle and windcone will need to be relocated to accommodate this improvement. As a simultaneous improvement to the parallel taxiway shift, new taxiway lighting will be installed. REILs for Runway 33 will also be installed during this stage of the planning period.

General airfield pavement maintenance, such as overlays, fog seals and slurry seals are planned in order to maintain the existing facilities. An ALP update is planned for the end of the Stage II planning period. This will allow for an opportunity to reflect all of the new improvements and address any new airport needs.

A portion of Honeyman Road is proposed for realignment between Skyway Drive West Lane Road during Stage II. A planning-level layout for the intersection is shown on the ALP, but further evaluation needs to be per-

formed to develop the final intersection and roadway alignment. There are no planned or required improvements for the West Lane Road and Highway 30 intersection.

Stage III of the planning period encompasses the years 2014 through 2023. In addition to all of the planned hangar and associated apron taxiway development, a new access road and associated utilities on the east side of the airport are to be constructed. General airfield pavement maintenance will need to occur, as with Stage II. The runway lighting is scheduled for an upgrade to an LED system towards the end of Stage III. Also at the end of Stage III, a Master Plan update is scheduled in order to address the next 20 years of airport growth and development.

Columbia County has detention and water quality requirements for new impervious surfaces. These requirements have been reviewed and approximate costs for meeting these requirements have been developed. The costs were based on past project costs with similar requirements. All new impervious surfaces, including, but not limited to taxiways and hangars, have planning level costs included for detention and water quality facility construction.

Runway visibility minimums, runway protection zones, object free areas, safety areas and other standard airport dimensions are shown in the plan and in the runway data tables.

## AIRPORT AIRSPACE PLAN

This plan shows the Part 77 Imaginary Surfaces for the ultimate layout of Scappoose Industrial Airpark with a USGS map as the background. Airport imaginary surfaces consist of five different types of surfaces. The surfaces for Scappoose Industrial Airpark are as follows:

**Primary Surface:** A rectangular surface with a width that varies for each runway (centered on the runway centerline) and a length that extends 200 feet beyond each end of the runway. The elevation of the primary surface corresponds to the elevation of the nearest point of the runway centerline. The width of the primary surface is 500 feet for Runway 15/33.

**Approach Surface:** A surface centered on the extended runway centerline, starting at each end of the primary surface, 200 feet beyond each end of the runway at a width equal to that of the primary surface and an elevation equal to that of the end of the runway; extending a horizontal distance of 5,000 feet at a slope of 20:1 for visual approaches (Runway 33) and 10,000 feet at a slope of 34:1 for nonprecision approaches (Runway 15) to a width of 1500 feet for Runway 33, and a width of 3,500 feet for Runway 15.

**Transitional Surface:** A sloping 7:1 surface that extends outward and upward at right angles to the runway centerline from the sides of the primary surface and the approach surfaces.

**Horizontal Surface:** An elliptical surface at an elevation 150 feet above the established airport elevation created by swinging 10,000-foot radius arcs from the center of each end of the primary surface of Runway 15/33.

**Conical Surface:** A surface extending outward and upward from the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet.

It is ideal to keep these surfaces clear of obstructions whenever possible. The Part 77 surfaces are the basis for protection of the airspace around the airport. Obstructions to these surfaces are identified in the Obstruction Data Tables (on sheets 3 and 4), along with the plan to address the described obstructions. Obstructions to the Part 77 surfaces were determined based on a review of the USGS map, a survey map provided by the National Oceanic Atmospheric Administration (NOAA) and the associated obstruction data sheet, which is based on a survey performed in November of 1994. Past obstruction removal and the FAA 5010 form were also used to identify the existing obstructions. Obstruction removal has been incorporated into the capital improvement program. When a tree is called out as an obstruction, in most cases there are a number of trees in the same area that will need to be removed. An updated obstruction survey is needed to specifically identify the trees that are obstructions to the Part 77 surfaces.

## **APPROACH ZONE PROFILES AND RUNWAY PROTECTION ZONE PLANS & PROFILES**

This group of drawings provides a larger scale view of the approach surfaces (existing and ultimate), runway protection zones and obstructions to the approach surfaces.

### **LAND USE PLAN**

A land use plan has been developed for the airport and the surrounding area. This plan includes the zoning on and around the airport, future noise contours for 2007, and a table depicting the zoning ordinances that affect or are related to the airport.

Noise contours were created for both the existing (2003) and the ultimate (2007) airport plan using the FAA Integrated Noise Model software program. The approach and take-off patterns of the aircraft and the number of aircraft operations dictate the noise contours. The ultimate noise contours are shown on the land use plan. The two sets of noise contours are shown on **Exhibit 4A**. These noise contours provide a basis for evaluation of the land use around the airport, which is discussed in greater length in the Land Use Compatibility section of this chapter.

There are two of zoning ordinances which involve the airport, the City of Scappoose Public Use Airport Safety and Compatibility Overlay and the Columbia County Aircraft Landing Field Overlay. They are identified on

the land use plan and discussed in more detail in the Land Use Compatibility Section of this chapter.

### **LAND USE COMPATIBILITY**

The following section addresses the impact of the airport on the surrounding environs and the impact of adjacent land uses on the airport.

### **RUNWAY PROTECTION ZONES**

Runway protection zones (RPZs) are trapezoidal, two-dimensional areas off each runway end designated to "enhance the protection of people and property on the ground". The RPZs are centered on the runway centerline. The RPZ dimensions for each runway end is dependent upon the type of aircraft and approach visibility minima. The Oregon Department of Aviation (ODA) recommends that only farm uses and, under limited circumstances, public airports, roads, parking, utilities, parks/open space, and golf courses, be allowed within the airport's RPZ. No structures should be allowed within the RPZ, unless they are structures accessory to airport operations that have been approved by the FAA. New residential developments and public assembly facilities are prohibited in the RPZs. For an expanded list of limitations to uses within the RPZ, see the ODA "Public Use Airport Safety and Compatibility Overlay Zone."

The portion of the land within the RPZs for Runways 15 and 33, but out-

side of airport property, is designated by the City of Scappoose as a Fish and Wildlife Zone. The fish and wildlife zone has been designated to "encourage the preservation of those areas identified as significant fish and wildlife habitat." This zoning is somewhat in conflict with the recommended uses in the RPZ. The primary conflicts are the wetlands and the bird attraction capability of the uses permitted in the zoning. The City should consider changing the zoning in the RPZ and the immediate airport vicinity to eliminate the land use conflicts.

The Port of St. Helens needs to update the aviation easements for the RPZs. Since the shift of the runway centerline, the existing easements don't cover the entire area underneath the RPZs. There is an area of aviation easement at both ends of the runway that needs to be acquired. Aviation easements protect both the airport and those using the land within the easement areas by addressing "right of flight" for aircraft (including noise, fumes, etc.), height restrictions, limitations on construction, and right to clear vegetation.

Noise contours were created for both the existing (2002) and the future (2007) airport plan using the FAA Integrated Noise Model software program. The approach and take-off patterns of the aircraft and the number of aircraft operations dictate the noise contours. The future noise contours are shown on the land use plan. The two sets of noise contours are shown

on Exhibit 4A. These noise contours provide a basis for evaluation of the land use around the airport.

Noise levels are measured in decibels of Day-Night Average Sound Levels or DNL. This measurement is then translated to contours, which depict the areas within the various DNL levels. F.A.R. Part 150, summarized in **Exhibit 4B**, provides guidelines for noise levels around an airport. Noise concerns are reduced when the noise level is below 65 DNL. The 65 DNL noise contour is almost completely within the existing and proposed airport property boundary. The portions within the 65 DNL contour that are beyond these property lines do not have any conflicting land uses per F.A.R. Part 150. The 55 DNL contour is still reviewed by the ODA, so this contour has also been shown on the land use drawing.

#### **AIRPORT AIRSPACE OBSTRUCTION PROTECTION AND LAND USE COMPATIBILITY ADJACENT TO THE AIRPORT**

In general, land use concerns associated with the areas around airports fall into one of the following categories:

- Lighting
- Glare, Smoke and Dust
- Bird Attractions/Landfills
- Airspace Obstructions and Height Restrictions

- Electrical Interference
- Concentrations of People
- Noise Impacts

Any of these activities can create safety concerns for airport users and people on the ground or can be impacted adversely by airport operations. It is important that these issues be addressed in the land use zoning and development around an airport.

The Scappoose Industrial Airpark and the adjacent land areas are regulated by the City of Scappoose Public Use Airport Safety and Compatibility Overlay and the Columbia County Aircraft Landing Field Overlay.

The City of Scappoose Public Use Airport Safety and Compatibility Overlay was based on the ODA model Public Use Airport Safety and Compatibility Overlay for an airport with instrument approaches. By enacting this overlay zone, the City has appropriately addressed the land use that is within their jurisdiction around the airport.

The City of Scappoose city limits terminate on the east and north sides of the airport property. Beyond these limits, the land use is under the jurisdiction of Columbia County. Columbia County has adopted an Aircraft Landing Field Overlay protects the Part 77 Surfaces with restrictions on height, lighting, glare, electrical interference, visibility, birds and places of public assembly. The primary concerns with the details of the overlay zone are that noise is not addressed and the approach surface dimensions are incor-

rect. Also, water impoundments, wetlands, and the RPZs are not specifically discussed. It is recommended that the County review the definition of the overlay area enacted by the City of Scappoose, and specifically considered addressing the shortfalls of their overlay definition.

Land use for Round Lake is under the jurisdiction of Columbia County. Ducks Unlimited is interested in improving and preserving the habitat for hunting. Although Round Lake is outside the runway approach surface, it is still inside the Part 77 Imaginary Surfaces. Bird attractions within the protected surfaces of the airport can increase the risk of bird strikes. The County and the Port need to work closely on this issue to assure that improvements to this habitat for hunting are not detrimental to the airport. The FAA and the ODA should both be consulted regarding this issue.

### **Obstruction Removal**

The obstructions and the proposed course for addressing those obstructions have been identified and are shown on airport plan sheets 3, 4 and 5. As previously mentioned, the obstructions information incorporated into this plan was obtained from a USGS map, a survey map provided by the National Oceanic Atmospheric Administration (NOAA) and the associated obstruction data sheet, which is based on a survey performed in November of 1994. Past obstruction removal and the FAA 5010 form were also used to identify the existing ob-

structions. No survey was performed. The Runway 33 visual approach surface is clear of obstructions. The Runway 15 nonprecision approach surface has a number of obstructions. These obstructions are trees and Honeyman Road.

In addition to evaluating the Part 77 Approach Surface, threshold siting requirements, per FAA Advisory Circular (AC) 150/5300-13, Change 7, Appendix 2 were reviewed. The threshold siting requirements provide a basis for further evaluating the obstructions in an approach surface to determine if there is any need for displacement or relocation of the runway threshold. The trees identified as obstructions to the Runway 15 approach surface impact the threshold siting surface and need to be removed. It appears that the roadway does not impact the threshold siting surface for Runway 15. It is recommended that this roadway be surveyed, in conjunction with the next airport improvement project, to confirm its location and elevation relative to the new runway centerline and approach surface. If survey of the roadway within the threshold siting surface identifies the roadway as an obstruction, then either the roadway will need to be relocated or the

threshold will have to be relocated or displaced.

### **Airport Property Zoning**

The City of Scappoose has zoned the airport property as "Public Use Airport". This zoning specifically protects the airport property from uses that may be undesirable or damaging to the airport. The ODA "Public Use Airport Zone" definition as provided in the Oregon Administrative Rule (OAR) 660 Division 13 was used as a model for this zoning definition.

Columbia County has zoned the airport property and some of the area around it as Airport Industrial. Though their definition does not follow the model, it addresses the limitations for development in the zoning area in order to protect the airport.

### **AIRPORT PROPERTY MAP**

The Exhibit A "Property Map" has been updated to reflect current airport property interests and future property acquisitions. Several parcels on the east side could be acquired should they become available for purchase.

# PORT OF ST. HELENS

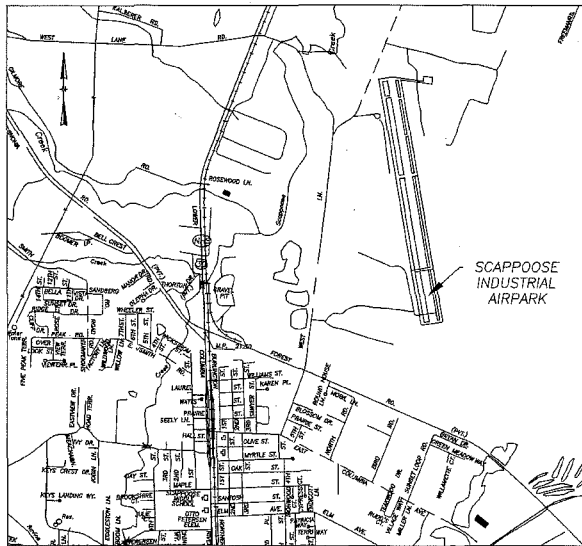
## SCAPPOOSE INDUSTRIAL AIRPARK

### AIRPORT MASTER PLAN

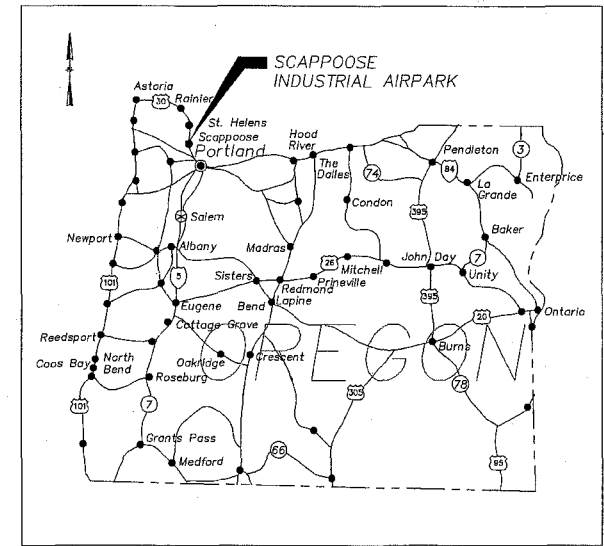
#### A.I.P. 3-41-0056-12

AUGUST 2004

VICINITY MAP



LOCATION MAP



### SHEET INDEX

SHEET	DESCRIPTION
SHEET 1	COVER SHEET
SHEET 2	AIRPORT LAYOUT PLAN
SHEET 3	AIRPORT AIRSPACE PLAN
SHEET 4	RUNWAY 15/33 APPROACH ZONE PROFILES
SHEET 5	RUNWAY 15/33 PROTECTION ZONE PLAN & PROFILES
SHEET 6	LAND USE PLAN

SECTION, TOWNSHIP, RANGE:

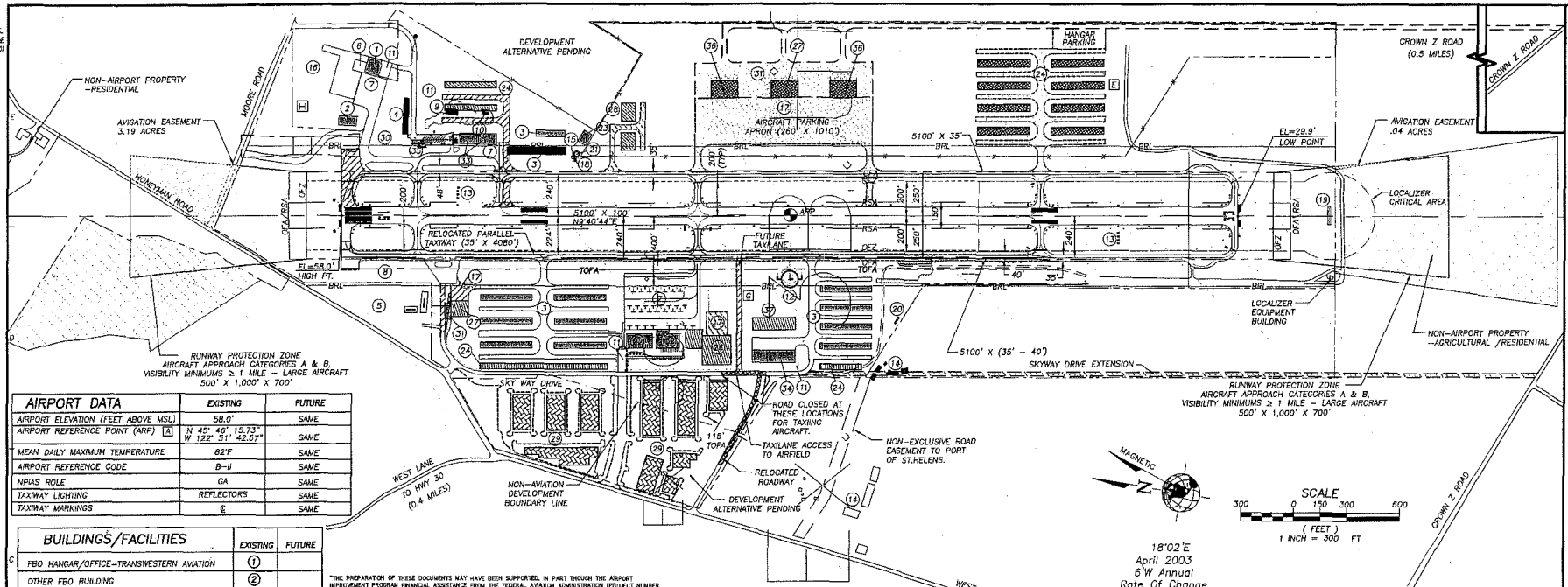


DATE	BY	REV	REVISION	CHK'D	APPR.

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	<p>DRAWING FILE NAME: 30398-AIRP-CS01.DWG</p> <p>SHEET 1/6 1</p>





AIRPORT DATA		
EXISTING	FUTURE	
AIRPORT ELEVATION (FEET ABOVE MSL)	58.0'	SAME
AIRPORT REFERENCE POINT (ARP)	N 45° 46' 15.73" W 122° 51' 42.57"	SAME
MEAN DAILY MAXIMUM TEMPERATURE	82°F	SAME
AIRPORT REFERENCE CODE	B-II	SAME
NRAS ROLE	CA	SAME
TAXIWAY LIGHTING	REFLECTORS	SAME
TAXIWAY MARKINGS	E	SAME

BUILDINGS/FACILITIES		
EXISTING	FUTURE	
FBO HANGAR/OFFICE—TRANSWESTERN AVIATION	1	
OTHER FBO BUILDING	2	
T-HANGAR BUILDINGS/HANGARS	3	2
SHED HANGARS (TO BE REMOVED)	4	
COUNTY PARK	5	
FUEL ISLAND	6	
PAVED AIRCRAFT APRON	7	17
TURF AIRCRAFT PARKING AREA	8	18
RESIDENCE/GARAGE	9	
MOBILE HOME (TO BE REMOVED)	10	
AUTO PARKING	11	11
WIND CONE/SEGMENTED CIRCLE	12	
PRECISION APPROACH PATH INDICATOR	13	
FARM BUILDINGS & RESIDENCES	14	
STORAGE SHED	15	
FBO—PRIVATE PROPERTY	16	
ELECTRICAL BUILDING	18	
LOCALIZER ANTENNA	19	
AUTOMATED SURFACE OBSERVING SYSTEM	20	
ROTATING BEACON ON TOWER	21	
SPORT COPTER	22	
SHED HANGAR PRIVATELY OWNED	23	

\*THE PREPARATION OF THESE DOCUMENTS MAY HAVE BEEN SUPPORTED, IN PART THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 34-0000-11) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47504. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEW OR POLICY OF THE FAA. ACCEPTANCE OF THESE DOCUMENTS BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DESCRIBED HEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE FEDERAL LAWS.

LEGEND		
	EXISTING	FUTURE
AIRFIELD PAVEMENT		
ROADWAY PAVEMENT		
PAVEMENT CONSTRUCTION STAGE 1		
PAVEMENT CONSTRUCTION STAGE 2		
PAVEMENT CONSTRUCTION STAGE 3		
TAXIWAY HOLDLINE		
PAVEMENT REMOVAL		
BUILDINGS		
BUILDING CONSTRUCTION STAGE 1		
BUILDING CONSTRUCTION STAGE 2		
BUILDING CONSTRUCTION STAGE 3		
BUILDING REMOVAL		
EASEMENT		
ACQUISITION BOUNDARY		
PROPERTY LINE		
NON-AVIATION DEV. BOUNDARY LINE		
BUILDING RESTRICTION LINE	BRL	
R/W OBJECT FREE AREA	OF2	
R/W SAFETY AREA	OFA	
R/W OBJECT FREE ZONE	RFSA	
RUNWAY PROTECTION ZONE		
TOPOGRAPHIC CONTOUR		
SURVEY MONUMENT	TM	
AIRPORT FENCE		
VEHICLE GATE		
AVIATION EASEMENT		
AIRPORT REFERENCE POINT	ARP	
ROTATING BEACON	REL	

APPROVAL BLOCK	
AIRPORT SIGNOR:	
Signature	Date
FEDERAL AVIATION ADMINISTRATION	
Signature	Date
Approval letter dated	

- NOTES:**
- COORDINATE DATA FROM NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION SERVICE OBSTRUCTION FOR SCAPPOOSE INDUSTRIAL AIRPARK (NOV. 1994), THEN MODIFIED BASED ON LENGTH OF RUNWAY EXTENSION, HORIZONTAL DATUM WAD 83, VERTICAL DATUM NAVD 83.
  - A TOPOGRAPHIC SURVEY HAS NOT BEEN PERFORMED. BRASS CAP SET IN CONCRETE.
  - POWER SUPPLIED TO AIRPORT BY COLUMBIA RIVER P.U.D.
  - NO WIND DATA IS AVAILABLE. WIND IS NOTED AS GENERALLY FOLLOWING RUNWAY ALIGNMENT, NORTHERLY AND SOUTHERLY WINDS OCCUR WITH APPROXIMATELY EQUAL FREQUENCY.
  - PROTECTED FROM 100-YEAR FLOOD BY LEVEE. SUBJECT TO POSSIBLE FAILURE OR OVERTOPPING DURING LARGE FLOOD (SOURCE, FEMA MAP).
  - BUILDING RESTRICTION LINE SHOWN FOR RUNWAY 15-33 IS BASED ON A 21 FOOT HIGH BUILDING.
  - CURRENTLY USED FOR HELICOPTER PARKING.

**MODIFICATIONS TO FAA STANDARDS:**  
SOME HOLD LINES AND RUNWAY-TO-TAXIWAY SEPARATION ON WEST SIDE ARE 15 FEET LESS THAN 240' STANDARDS FOR A B-II RUNWAY.

RUNWAY DATA	R/W 15		R/W 33	
	EXISTING	FUTURE	EXISTING	FUTURE
ARC	B-II	SAME	B-II	SAME
CRITICAL AIRCRAFT	SM. BUSINESS JET	SAME	SM. BUSINESS JET	SAME
RUNWAY DIMENSIONS (L/W)	5100' x 100'	SAME	5100' x 100'	SAME
PAVEMENT TYPE	ASPHALT CONCRETE	SAME	ASPHALT CONCRETE	SAME
PAVEMENT DESIGN STRENGTH	SW-30,000LBS/DW-50,000LBS	SAME	SW-30,000LBS/DW-50,000LBS	SAME
RUNWAY LIGHTING	MIRL	SAME	MIRL	SAME
RUNWAY MARKING	NON-PRECISION	SAME	VISUAL	SAME
EFFECTIVE GRADIENT (%)	0.56	SAME	0.56	SAME
VISUAL APPROACH AIDS	RELS, PAPI, ROTATING BEACON	SAME	PAPI, ROTATING BEACON	SAME
INSTRUMENT APPROACH AIDS	LOCALIZER, DME	SAME	NONE	SAME
RSA SAFETY AREA (L/W)	5700' x 150'	SAME	5700' x 150'	SAME
OFA DIMENSIONS (L/W)	5700' x 500'	SAME	5700' x 500'	SAME
OFZ DIMENSIONS (L/W)*	5500' x 400'	SAME	5500' x 400'	SAME
RUNWAY END COORDINATES WAD 83	N 45° 46' 40.81" W 122° 51' 48.65"	SAME	N 45° 45' 51.05" W 122° 51' 35.49"	SAME
APPROACH TYPE	NON-PRECISION	SAME	VISUAL	SAME
APPROACH FAR PART 77 SLOPES	34:1	SAME	20:1	20:1
APPROACH ACTUAL SLOPES	17:1	SAME	50:1	29:1
APPROACH VISIBILITY MIN.	> 1 MILE	SAME	> 1 MILE	SAME
THRESHOLD DISPLACEMENT	NONE	SAME	NONE	SAME
THRESHOLD LOCATION	NONE	SAME	NONE	SAME
TOFA	5100'	5100'	5100'	5100'
TODA	5100'	5100'	5100'	5100'
ASDA	5100'	5100'	5100'	5100'
LDA	5100'	5100'	5100'	5100'

\* NO OFZ OBJECT PENETRATIONS.

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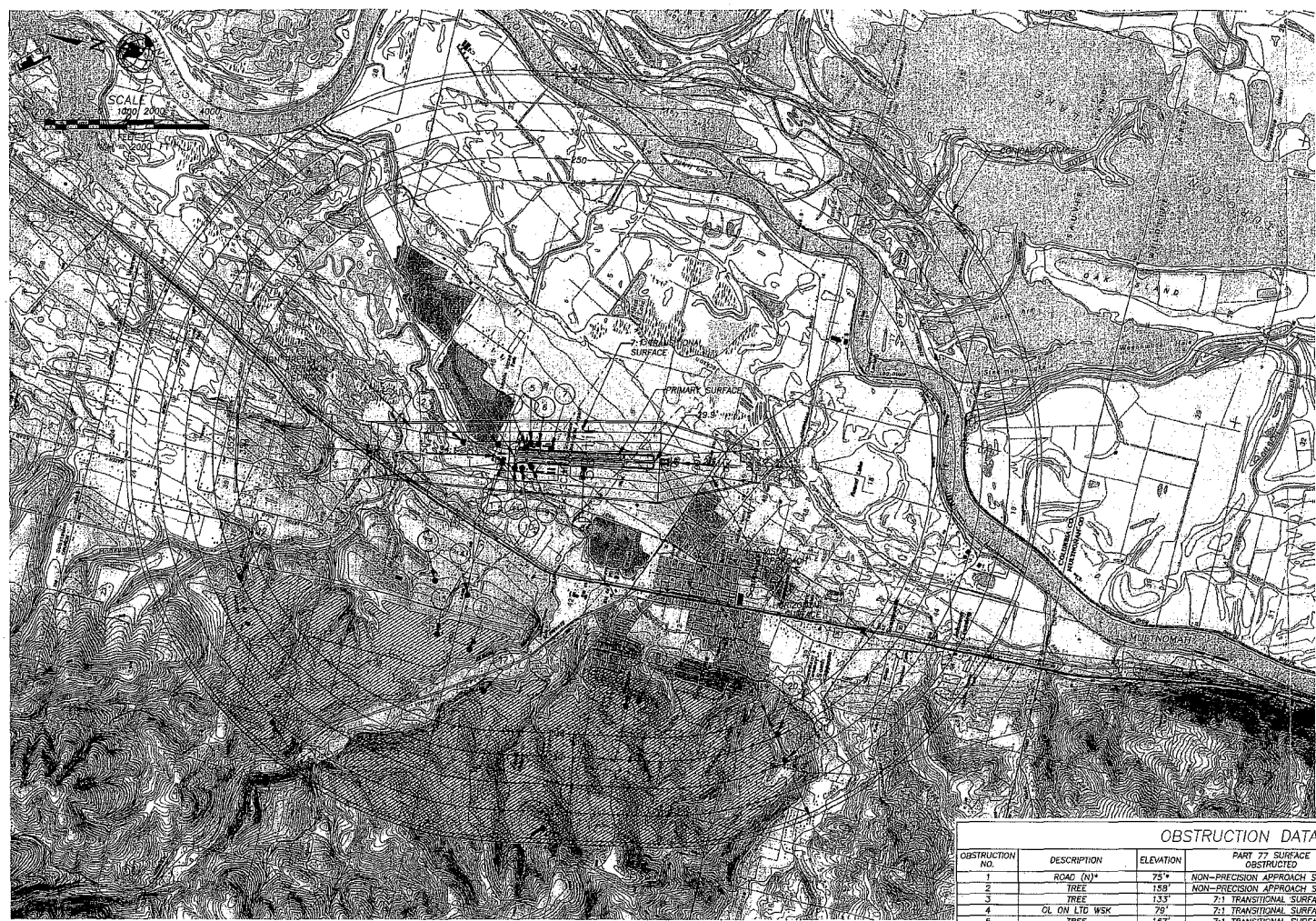
PORT OF ST. HELENS  
SCAPPOOSE INDUSTRIAL AIRPARK  
AIRPORT LAYOUT PLAN  
PROJECT NO. 30398  
SCALE: 1" = 300'  
DRAWING FILE NAME: AIRP-LP01  
OREGON

Coffman Associates  
Airport Consultants

DESIGNED BY: LAM  
DRAWN BY: CMB  
LAST EDIT: 12/02/03  
DATE: 1/17/04  
CHECKED BY: REA  
APPROVED BY: CMB  
PLOT DATE: 09/27/04  
REVISION: 02/04/04

SHEET 2/6  
2

SHEET NO. 3  
 DATE 08/27/04  
 DRAWN BY: [blank]  
 CHECKED BY: [blank]  
 PROJECT NO. 30399  
 SCALE 1"=2000'  
 DRAWING FILE NAME: 30399-AIRP-A  
 PROJECT NO. 30399  
 SCALE 1"=2000'  
 DRAWING FILE NAME: 30399-AIRP-A  
 PROJECT NO. 30399  
 SCALE 1"=2000'  
 DRAWING FILE NAME: 30399-AIRP-A



**NOTES:**

1. OBSTRUCTIONS LISTED INFORMATION WAS OBTAINED FROM NOAA AIRPORT OBSTRUCTION CHART AND AERONAUTICAL DATA SHEET, USGS QUAD MAPS, AND AIRPORT MANAGEMENT. NO SURVEY WAS PERFORMED.
2. A GROWTH ALLOWANCE WAS NOT INCORPORATED INTO THE OBSTRUCTION REVIEW.
3. THE FOLLOWING HEIGHTS WERE ADDED TO THE SURFACE ELEVATION FOR CERTAIN GROUND FEATURES:  
 10FT FOR A PRIVATE ROAD  
 15FT FOR A PUBLIC ROAD  
 17FT FOR AN INTERSTATE ROAD  
 20FT FOR MAINTENANCE TRENCHES
4. ALL ELEVATIONS ARE ON THE NAVD 88 DATUM, WITH THE EXCEPTION OF THE USGS MAP, WHICH IS NGVD 29.
5. PART 77 SURFACES PROTECTED BY CITY OF SCAPPOOSE AND COLUMBIA COUNTY AIRPORT OVERLAY ZONE.
6. SEE SHEET 4 FOR A MORE DETAILED VIEW OF CLOSE-IN OBSTRUCTIONS.

**LEGEND:**

- OBSTRUCTIONS
- ⊗ GROUP AND MULTIPLE OBSTRUCTIONS

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**OBSTRUCTION DATA TABLE**

OBSTRUCTION NO.	DESCRIPTION	ELEVATION	PART 77 SURFACE OBSTRUCTED	SURFACE ELEVATION	PENETRATION	PROPOSED DISPOSITION OF OBSTRUCTION
1	ROAD (N)*	75*	NON-PRECISION APPROACH SURFACE	84'	11'	SEE NOTE BELOW
2	TREE	159'	NON-PRECISION APPROACH SURFACE	113'	45'	REMOVE
3	TREE	133'	7:1 TRANSITIONAL SURFACE	85'	48'	REMOVE
4	OL ON LTD WSK	76'	7:1 TRANSITIONAL SURFACE	69'	10'	TO REMAIN
5	TREE	167'	7:1 TRANSITIONAL SURFACE	89'	78'	REMOVE
6	TREE	174'	7:1 TRANSITIONAL SURFACE	85'	89'	REMOVE
7	APBN	98'	7:1 TRANSITIONAL SURFACE	62'	36'	REMOVE
8	OL ON LTD WSK	72'	7:1 TRANSITIONAL SURFACE	58'	16'	TO REMAIN
9	OL ON LTD WSK	67'	7:1 TRANSITIONAL SURFACE	73'	14'	TO REMAIN
10	TREE	180'	7:1 TRANSITIONAL SURFACE	82'	98'	REMOVE
11	TREE	183'	7:1 TRANSITIONAL SURFACE	82'	101'	REMOVE
12	GROUND SURFACE	200'-220'	CONICAL SURFACE	VARIES	VARIES	FIXED; NO ACTION
13	TREE	273'	HORIZONTAL SURFACE	208'	85'	NO ACTION
14	TREE	251'	HORIZONTAL SURFACE	208'	45'	NO ACTION
15	TREE	363'	HORIZONTAL SURFACE	208'	156'	NO ACTION
16	TREE	364'	HORIZONTAL SURFACE	208'	156'	NO ACTION
17	TREE	408'	HORIZONTAL SURFACE	208'	206'	NO ACTION
18	TREE	420'	HORIZONTAL SURFACE	208'	412'	NO ACTION
19	TREE	549'	HORIZONTAL SURFACE	208'	341'	NO ACTION
20	GROUND SURFACE	200'-240'	CONICAL SURFACE	VARIES	VARIES	FIXED; NO ACTION
21	GROUND SURFACE	250'-285'	CONICAL SURFACE	VARIES	VARIES	FIXED; NO ACTION
22	GROUND SURFACE	200'-860'	CONICAL SURFACE	VARIES	VARIES	FIXED; NO ACTION
23	GROUND SURFACE	200'-550'	CONICAL SURFACE	VARIES	VARIES	FIXED; NO ACTION

NOTE: \* ROAD ELEVATION IS AN APPROXIMATED AND NEEDS TO BE SURVEYED FOR CONFIRMATION PRIOR TO ADDRESSING IT AS AN OBSTRUCTION.

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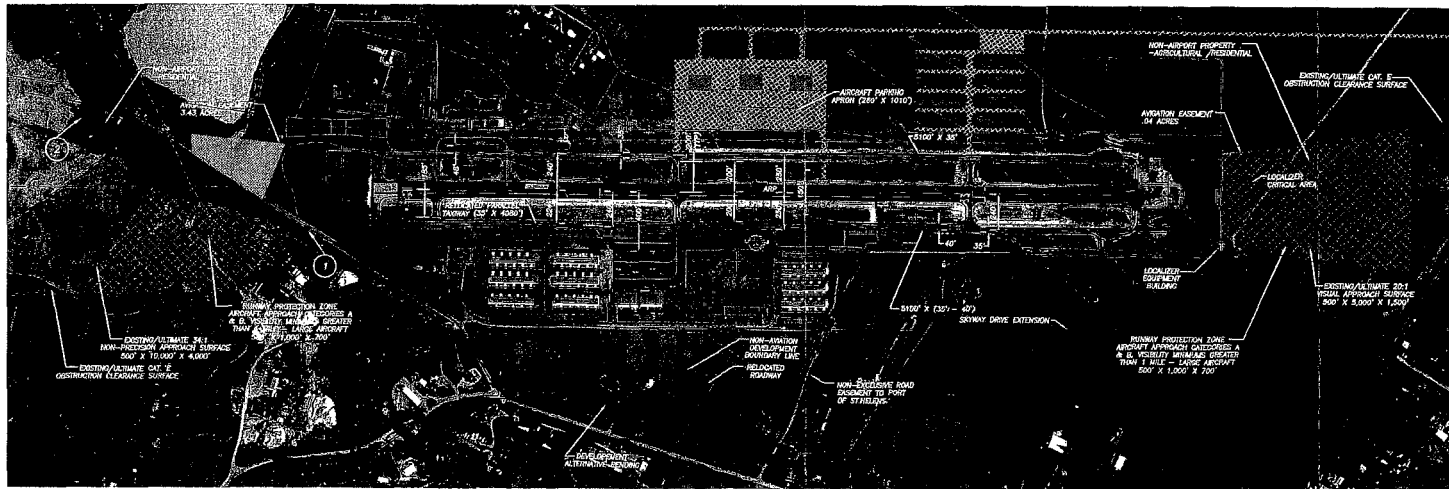
**PORT OF ST. HELENS  
 SCAPPOOSE INDUSTRIAL AIRPORT  
 AIRPORT AIRSPACE PLAN**

SCAPPOOSE  
 SCALE 1"=2000'  
 PROJECT NO. 30399  
 DRAWING FILE NAME: 30399-AIRP-A



DESIGNED BY:	CHECKED BY:	DATE:	REVISION	FOR DISCUSS
LANI	BEA	08/27/04		
DATE:	BY:	REVISION		





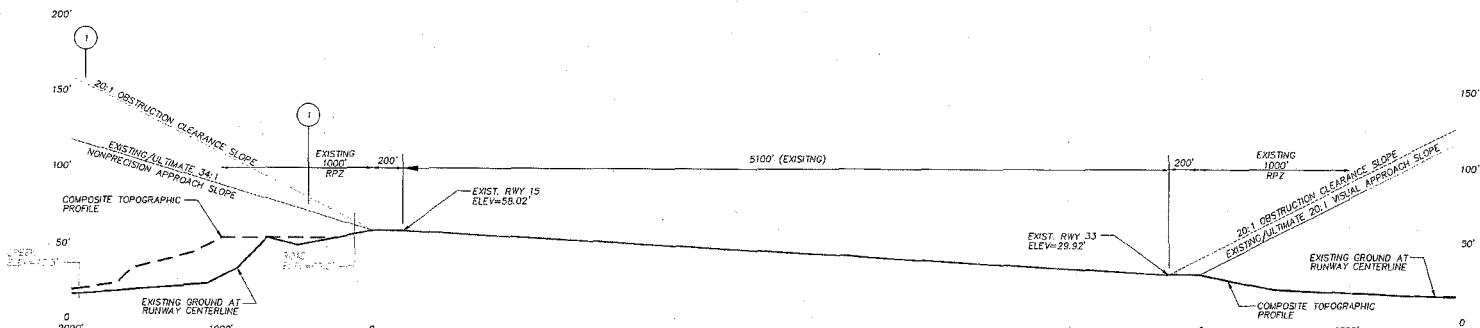
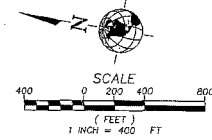
SCALE: HORIZONTAL 1"=400'

OBSTRUCTION DATA TABLE						
OBSTRUCTION NO.	DESCRIPTION	ELEVATION	PART 77 SURFACE OBSTRUCTED	SURFACE ELEVATION	PENETRATION	PROPOSED DISPOSITION OF OBSTRUCTION
1	ROAD RW#1	72'	NON-PRECISION APPROACH SURFACE	64'	11'	SEE NOTE BEGIN REMOVE
2	TREE	138'	NON-PRECISION APPROACH SURFACE	113'	45'	REMOVE

NOTE: \* ROAD ELEVATION IS AN APPROXIMATION AND NEEDS TO BE SURVEYED FOR CONFIRMATION PRIOR TO ADDRESSING IT AS AN OBSTRUCTION.

NOTES:

1. OBSTRUCTION INFORMATION WAS OBTAINED FROM THE NOAA AIRPORT OBSTRUCTION CHART AND AERONAUTICAL DATA SHEET, USGS QUAD MAPS, AND AIRPORT MANAGEMENT. NO SURVEY WAS PERFORMED.
2. SEE SHEET 3 FOR PRIMARY SURFACE & ADDITIONAL APPROACH SURFACE OBSTRUCTIONS.
3. THE FOLLOWING HEIGHTS WERE ADDED TO THE SURFACE ELEVATION FOR CERTAIN ITEMS:  
10FT FOR A PRIVATE ROAD  
15FT FOR A PUBLIC ROAD  
17FT FOR AN INTERSTATE ROAD  
23FT FOR RAILROAD TRACKS
4. ALL ELEVATIONS ARE ON THE NAD 83 DATUM WITH THE EXCEPTION OF THE USGS MAP, WHICH IS NAVD 29.



SCALE: HORIZONTAL 1"=400'  
VERTICAL 1"=40'

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PORT OF ST. HELENS  
SCAPPOOSE INDUSTRIAL AIRPARK  
RUNWAY 15/33 PROTECTION  
ZONE PLAN & PROFILES  
PROJECT NO. 30388  
DRAWING FILE NAME: 30388-AIRP-P-  
SCALE: 1"=400'

Coffman Associates Airport Consultants

DESIGNED BY:	LM	CHECKED BY:	REA
DRAWN BY:	CM	APPROVED BY:	REA
DATE:	08/18/03	PLOT DATE:	08/27/04
REVISION:		REVISION:	

SHEET 5/6  
5

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CITY ZONING DESIGNATIONS	
R-1	LOW DENSITY RESIDENTIAL
R-4	MODERATE DENSITY RESIDENTIAL
Z-1	HIGH DENSITY RESIDENTIAL
MH	MANUFACTURED HOME-RESIDENTIAL
C	COMMERCIAL
EC	EXPANDED COMMERCIAL
LI	LIGHT INDUSTRIAL
FWW	FISH-WILDLIFE
PLA	PUBLIC USE AIRPORT
COUNTY ZONING DESIGNATIONS	
PA-3B	PRIMARY AGRICULTURE
RWD	RURAL INDUSTRIAL
AI	AIRPORT INDUSTRIAL
FA-1S	FOREST/AGRICULTURE
SM	SURFACE MINING

LEGEND	
(Dashed line)	CITY LIMITS
(Dotted line)	AIRPORT PROPERTY LINE
(Long dashed line)	FUTURE AIRPORT PROPERTY LINE
(Short dashed line)	100YR FLOOD PLAIN
(Dash-dot line)	500YR FLOOD PLAIN
(Solid line)	ZONING BOUNDARY
(Wavy line)	AVIGATION EASEMENTS
(Dotted line)	FUTURE AVIGATION EASEMENTS
(Thick solid line)	RUNWAY PROTECTION ZONE
(Thin solid line)	URBAN GROWTH
(Thin solid line)	NOISE CONTOURS

- NOTE:
1. APPROACH AND DEPARTURE PATTERNS ARE PER THE CURRENT VERSION OF THE ILS TERAMAN PROCEDURES FOR RUNWAY 15. RUNWAY 33 HAS A RIGHT TRAFFIC PATTERN.
  2. NOISE CONTOURS ARE SHOWN FOR THE YEAR 2007. THESE CONTOURS WERE DEVELOPED BASED ON AIRCRAFT TRAFFIC FORECASTS FOR THE AIRPORT.
  3. THE AREA ZONED FOR FISH AND WILDLIFE TO THE WEST AND NORTH OF THE AIRPORT MAYBE SUBJECT TO SECTION 303(C) OF TITLE 46, U.S.C.
  4. THE PROPERTY LINE SHOWN ON THIS DRAWING IS BASED ON THE INFORMATION PROVIDED ON THE AIRPORT PROPERTY MAP, EXHIBIT "A".

LAND USE, ZONING, HEIGHT RESTRICTIONS, & ORDINANCES		
ORDINANCE NUMBER	DATE	DESCRIPTION
726	SEPTEMBER 18, 2002	CITY OF SCAPPOOSE - PUBLIC USE AIRPORT SAFETY AND COMPATIBILITY OVERLAY
ARTICLE VI, SECTION 1150	UNKNOWN	COLUMBIA COUNTY - AIRCRAFT LANDING FIELD OVERLAY

NOTE: CITY OF SCAPPOOSE ZONING MAP LAST REVISED ON APRIL 30, 1999.



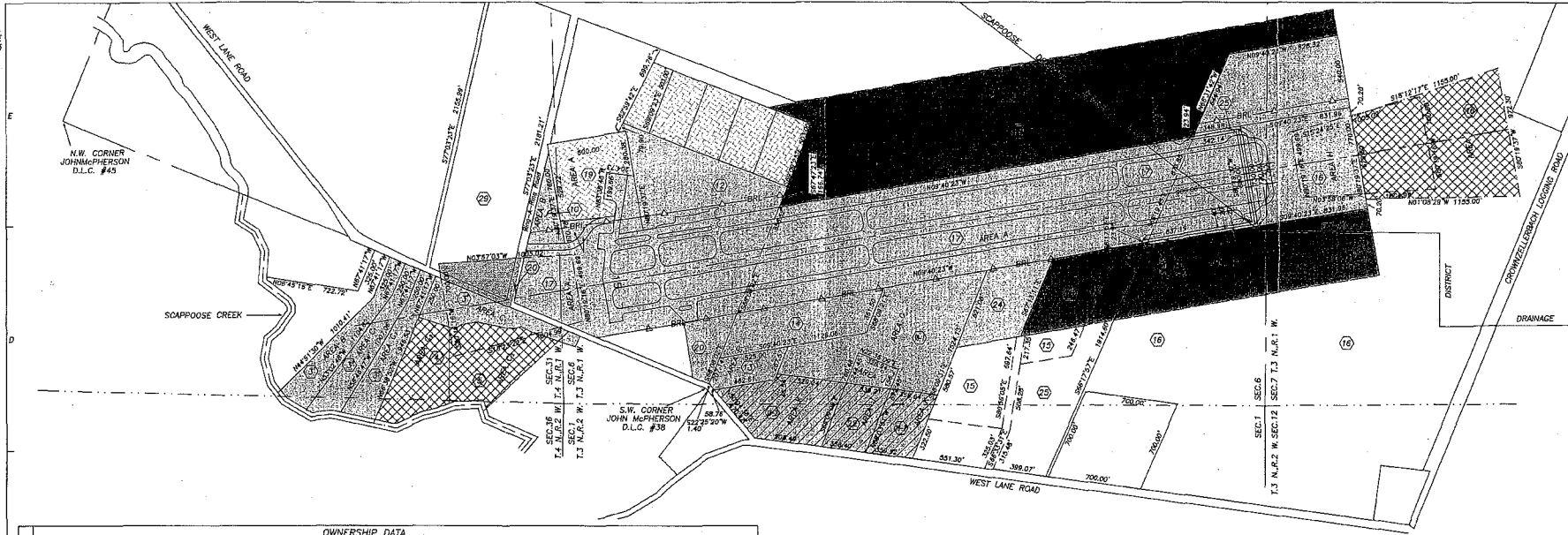
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SCAPPOOSE  
 SCALE: 1"=400'  
 PROJECT NO. 30398  
 DRA 1  
 OF MAPS - AIRP-LU01

**Coffman**  
 Airport Consultants

DESIGNED BY:	LAM	CHECKED BY:	REB
DRAWN BY:	CMB	APPROVED BY:	
DATE:	08/19/03	PLOT DATE:	08/27/04
BY:	RCM	REVISION:	

SHEET 6/6  
**6**



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PORT OF ST. HELENS  
SCAPOOSE INDUSTRIAL AIRPARK  
EXHIBIT A

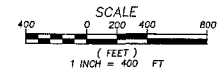
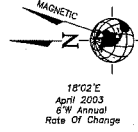
PROJECT NO. 30398  
DRAWING FILE NAME: 30398-airp-e  
SCALE: 1" = 400'



OWNERSHIP DATA												
PARCEL	LAND OWNER	ACRES	RECORDED			INTEREST ACQUIRED	INTEREST REIMBURSED	EASEMENT TYPE	ACRES ACQU.	AREA	PREVIOUS OWNER	LAND ACQUISITION
			DATE	BOOK	PAGE							
37	PORT OF ST. HELENS	5.00	06-03-80	230	867	FEE	FEE		5.00	B	BEBE & MELTON	A.D.A.P. 01
37	PORT OF ST. HELENS	5.00	05-12-80	230	536	EASEMENT/ FEE	EASEMENT/ FEE		5.00	C	BEBE & MELTON	A.D.A.P. 01 & AP 01
37	PORT OF ST. HELENS	5.00	05-12-80	230	538	EASEMENT/ FEE	EASEMENT/ FEE		5.00	G	BEBE & MELTON	A.D.A.P. 01 & AP 01
37	PORT OF ST. HELENS	5.00	05-12-80	230	539	EASEMENT/ FEE	EASEMENT/ FEE		5.00	G	BEBE & MELTON	A.D.A.P. 01 & AP 01
10	PORT OF ST. HELENS	2.20	08-23-78	219	615	FEE	FEE		2.20	B	GENE & EILEEN MCWICKER	A.D.A.P. 01
13	PORT OF ST. HELENS	2.70	09-20-78	F78	7274	FEE	FEE		2.70	E	ROBERT & SHERYL ADAMS	A.D.A.P. 02
14	PORT OF ST. HELENS	8.00	06-18-79	224	570	FEE	FEE		8.00	E	L.D. & THELMA CODY	A.D.A.P. 02
25	PORT OF ST. HELENS	0.88	09-13-81	237	15	FEE	FEE		0.88	F	ARBOR ROSE FARMS	A.D.A.P. 02
25	PORT OF ST. HELENS	15.94	01-04-77	215	922	FEE	FEE		15.94	G	DONALD & EMMA MEIER	A.D.A.P. 02
25	PORT OF ST. HELENS	12.25	01-04-77	215	922	FEE	FEE		12.25	K	DONALD & EMMA MEIER	PORT FUNDING ONLY
16	PORT OF ST. HELENS	14.71	11-10-82	CIR.	CT.	FEE	FEE		14.71	H&I	WAGNER RANCH	A.I.P. 3-41-0056-01
22	PORT OF ST. HELENS	5.40	04-27-81	236	584	FEE	FEE		5.40	J	JEANNE FREDRICKS	PORT FUNDING ONLY
12	PORT OF ST. HELENS	12.34	09-14-89	F89	5391	FEE	FEE		12.34	-	IRVIN & MARLEA LEFFLER	A.I.P. 3-42-0056-05
16	PORT OF ST. HELENS	12.45	11-14-96	F96	11689	FEE	FEE		12.45	H&I	STANLEY WAGNER	A.I.P. 3-41-0056-08
17	PORT OF ST. HELENS	80.43	10-30-72	189	13	FEE	N/A		80.43	A	COLUMBIA COUNTY	
20	PORT OF ST. HELENS	2.85	06-04-76	206	676	FEE	N/A		2.85	-	COLUMBIA COUNTY	
24	PORT OF ST. HELENS	6.00	02-12-91	F91	0759	FEE	N/A		6.00	-	ELIZABETH JOHNSON	
4	JAMES & BARBARA FISHER	7.13	11-21-78	220	970	EASEMENT	EASEMENT	AVIGATION	2.70	C		A.D.A.P. 01
6	GEORGE DUGAN (TRUSTEE)	6.19	10-18-73	194	701	EASEMENT	EASEMENT	AVIGATION	4.20	C		A.D.A.P. 01
16	WAGNER RANCH	177.98	11-10-82	CIR.	CT.	EASEMENT	EASEMENT	AVIGATION	21.00	H&I		A.I.P. 3-41-0056-01
16	STANLEY WAGNER	38.50	09-24-90	F90	5502	FEE	N/A		21.70	H&I		
16	STANLEY WAGNER	38.50	09-24-90	F90	5502	EASEMENT	N/A	AVIGATION	0.14	H&I		
15	ARBOR ROSE FARMS	34.52	07-01-83	F83	10730	FEE	N/A		6.73	F		
29	NORTHWEST AGGREGATE CO.	200.00	02-15-95	F95	01186	FEE	N/A		58.99	A		
29	NORTHWEST AGGREGATE CO.	200.00	02-15-95	F95	01186	EASEMENT	N/A	AVIGATION	3.19	A		
18	ELIZABETH K. JOHNSON	5.99	02-12-91	F91	0758	FEE	N/A		5.99	-	PORT OF ST. HELENS	

NOTE:

ALL BEARINGS AND DISTANCES SHOWN ON THE ANNEXED MAP HAVE BEEN ROTATED AND ADJUSTED TO FIT COUNTY SURVEY NUMBER 1946, BY HAGSDORN ON 2-28-82, AND MAY NOT AGREE WITH DEED DATA.  
BASEMAP FOR PROPERTY INFORMATION PROVIDED BY DEWEY SURVEYING, INC.  
AREA LETTER DESIGNATIONS HAVE BEEN RETAINED IN ORDER TO MATCH PREVIOUS FAA AND RECORD DOCUMENTATION.



LEGEND:

- EXISTING FEE OWNERSHIP (210.31 ACRES)
- EXISTING AVIGATION EASEMENT
- FEE OWNERSHIP TO BE ACQUIRED
- AVIGATION EASEMENT TO ACQUIRE
- AREA TO BE ACQUIRED IF AVAILABLE
- ACQUIRED BY PORT FUNDING ONLY
- AIRPORT PROPERTY LINE
- PARCEL BOUNDARY
- RUNWAY CENTERLINE
- RUNWAY PROTECTION ZONE
- BUILDING RESTRICTION LINE
- SECTION & DONATION LAND CLAIM LINES
- AREA TO BE ACQUIRED

**AIRPORT EXHIBIT A**

PORT OF ST. HELENS  
SCAPOOSE INDUSTRIAL AIRPARK

---

FEDERAL AVIATION ADMINISTRATION APPROVAL

APPROVED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

---

PORT OF ST. HELENS APPROVAL

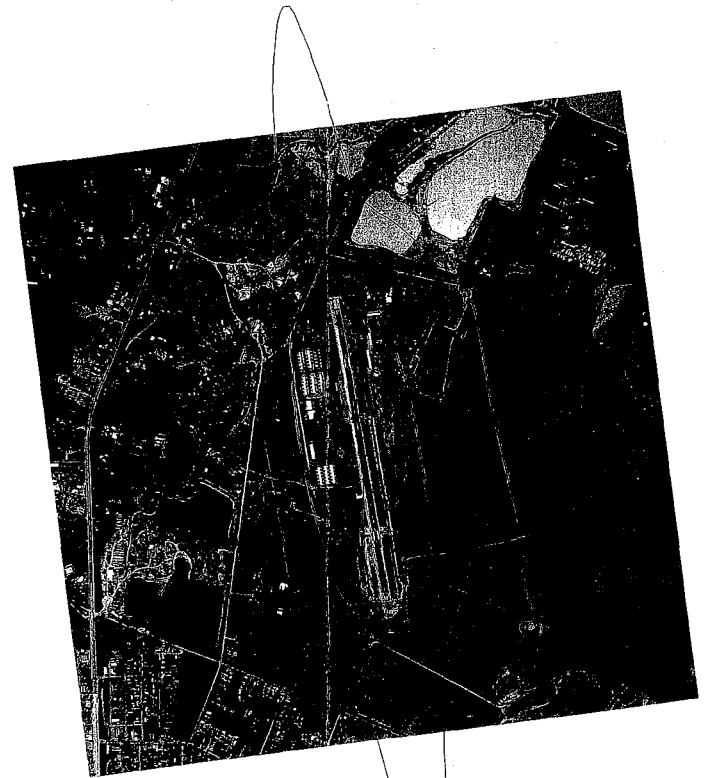
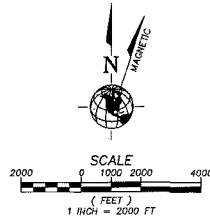
APPROVED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

DESIGNED BY:	LAM	CHECKED BY:	REA
DRAWN BY:	CMB	APPROVED BY:	
DATE:	09/27/04	DATE:	09/20/04
REVISION:		REVISION:	

DWG INDEX:  
 32700200  
 34700220



EXISTING NOISE CONTOURS - 2002



ULTIMATE NOISE CONTOURS - 2007

Office: SEATTLE | System: WHP-SE-800121 | User: CDR/TEMP

DESIGNED BY:	CMB	CHECKED BY:	LAM
DRAWN BY:	CMB	APPROVED BY:	
LAST EDIT:	03/08/04	PLOT DATE:	03/08/04
DATE	BY	REV	REVISION
			CK'D/APPR

**W&H PACIFIC**  
 9755 SW Barnes Rd., #300  
 Portland, Oregon 97268  
 (503) 928-0456  
 (503) 928-0778  
 whpacific.com  
 Planners • Engineers • Surveyors • Landscape Architects

**PORT OF ST. HELENS  
 SCAPPOOSE INDUSTRIAL AIRPARK  
 NOISE CONTOURS  
 EXHIBIT 4A**

SCAPPOOSE	PROJECT NO. 30398	DRAWING FILE NAME: EXHIBIT-4a	OREGON <b>4A</b> SHEET
SCALE: 1"=2000'			



LAND USE	Yearly Day-Night Average Sound Level (DNL) in Decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
<b>RESIDENTIAL</b>						
Residential, other than mobile homes and transient lodgings	Y	N	N <sup>1</sup>	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N	N	N	N	N
<b>PUBLIC USE</b>						
Schools	Y	N	N	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Government services	Y	Y	25	30	N	N
Transportation	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	Y <sup>4</sup>
Parking	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
<b>COMMERCIAL USE</b>						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail-building materials, hardware and farm equipment	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
Retail trade-general	Y	Y	25	30	N	N
Utilities	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
Communication	Y	Y	25	30	N	N
<b>MANUFACTURING AND PRODUCTION</b>						
Manufacturing, general	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y <sup>6</sup>	Y <sup>7</sup>	Y <sup>8</sup>	Y <sup>8</sup>	Y <sup>8</sup>
Livestock farming and breeding	Y	Y <sup>6</sup>	Y <sup>7</sup>	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
<b>RECREATIONAL</b>						
Outdoor sports arenas and spectator sports	Y	Y <sup>5</sup>	Y <sup>5</sup>	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts, and camps	Y	Y	Y	N	N	N
Golf courses, riding stables, and water recreation	Y	Y	25	30	N	N

The designations contained in this table do not constitute a federal determination that any use of land covered by the program is acceptable under federal, state, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

See other side for notes and key to table.





## KEY

- Y (Yes)** — Land Use and related structures compatible without restrictions.
- N (No)** — Land Use and related structures are not compatible and should be prohibited.
- NLR** — Noise Level Reduction (outdoor-to-indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
- 25, 30, 35** — Land Use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

## NOTES

1. Where the community determines that residential or school uses must be allowed, measures to achieve outdoor-to-indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
2. Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
3. Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
4. Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
5. Land use compatible provided special sound reinforcement systems are installed.
6. Residential buildings require a NLR of 25.
7. Residential buildings require a NLR of 30.
8. Residential buildings not permitted.

Source: *F.A.R. Part 150*, Appendix A, Table 1.



**Exhibit 4C  
Scappoose Industrial Airpark—Master Plan Update  
Proposed Capital Improvement Projects (April 2004)**

Project Description	Total Cost	Port	Funding Source		
			State*	FAA*	Private
<b>Stage I (2004-2008)</b>					
2004 Property Acquisition (east side - 60 acres)	\$ 920,000	\$ 46,000	\$ 0	\$ 874,000	\$ 0
Security Fencing	\$ 193,000	\$ 9,650	\$ 0	\$ 183,350	\$ 0
FBO Development Area	\$ 232,200	\$ 0	\$ 0	\$ 0	\$ 232,200
FBO Apron	\$ 80,900	\$ 0	\$ 0	\$ 0	\$ 80,900
FBO Hangar Construction (9000 SF)	\$ 435,500	\$ 0	\$ 0	\$ 0	\$ 435,500
Hangar Construction (northwest side; 1 building - 16 units)	\$ 773,680	\$ 773,680	\$ 0	\$ 0	\$ 0
Avigation Easement Acquisition	\$ 37,500	\$ 1,875	\$ 0	\$ 35,625	\$ 0
<b>Subtotal 2004</b>	<b>\$ 2,672,780</b>	<b>\$ 831,205</b>	<b>\$ 0</b>	<b>\$ 1,092,975</b>	<b>\$ 748,600</b>
2005 Taxilane Construction (west side)	\$ 151,700	\$ 7,585	\$ 0	\$ 144,115	\$ 0
Oregon Aero Hangar Expansion	\$ 3,000,000	\$ 0	\$ 0	\$ 0	\$ 3,000,000
Obstruction Survey and Removal	\$ 11,800	\$ 590	\$ 0	\$ 11,210	\$ 0
Building Demolition (northeast side - 4 buildings)	\$ 83,400	\$ 4,170	\$ 0	\$ 79,230	\$ 0
General Airfield Pavement Maintenance (per PCI)	\$ 320,000	\$ 80,000	\$ 240,000	\$ 0	\$ 0
Entrance Roadway	\$ 200,000	\$ 10,000	\$ 0	\$ 190,000	\$ 0
<b>Subtotal 2005</b>	<b>\$ 3,766,900</b>	<b>\$ 102,345</b>	<b>\$ 240,000</b>	<b>\$ 424,555</b>	<b>\$ 3,000,000</b>
2006 Taxiway Lighting (east side)	\$ 372,900	\$ 18,645	\$ 0	\$ 354,255	\$ 0
Sherpa Aircraft Hangar Expansion	\$ 1,330,000	\$ 0	\$ 0	\$ 0	\$ 1,330,000
Taxiway/Taxilane Construction (east side)	\$ 378,500	\$ 18,925	\$ 0	\$ 359,575	\$ 0
Industrial Business Park Roadway Package (CIDA)**	\$ 900,000	\$ 450,000	\$ 0	\$ 0	\$ 450,000
CIDA Sewer Extension**	\$ 545,000	\$ 272,500	\$ 0	\$ 0	\$ 272,500
Hangar Construction (west side; 1 building - 8 units)	\$ 387,100	\$ 387,100	\$ 0	\$ 0	\$ 0
<b>Subtotal 2006</b>	<b>\$ 3,913,500</b>	<b>\$ 1,147,170</b>	<b>\$ 0</b>	<b>\$ 713,830</b>	<b>\$ 2,052,500</b>
2007 Hangar Construction (east side; 1 building - 10 units)	\$ 459,800	\$ 459,800	\$ 0	\$ 0	\$ 0
Security Fencing (Area 21)	\$ 190,400	\$ 9,520	\$ 0	\$ 180,880	\$ 0
Industrial Business Park Building Package (CIDA)**	\$ 780,000	\$ 0	\$ 0	\$ 0	\$ 780,000
<b>Subtotal 2007</b>	<b>\$ 1,430,200</b>	<b>\$ 469,320</b>	<b>\$ 0</b>	<b>\$ 180,880</b>	<b>\$ 780,000</b>
2008 General Airfield Pavement Maintenance (per PCI)	\$ 250,000	\$ 62,500	\$ 187,500	\$ 0	\$ 0
<b>Subtotal 2008</b>	<b>\$ 250,000</b>	<b>\$ 62,500</b>	<b>\$ 187,500</b>	<b>\$ 0</b>	<b>\$ 0</b>
<b>Subtotal Stage I</b>	<b>\$ 12,033,380</b>	<b>\$ 2,612,540</b>	<b>\$ 427,500</b>	<b>\$ 2,412,240</b>	<b>\$ 6,581,100</b>
<b>Stage II (2009-2013)</b>					
Property Acquisition (west side - 30.4 acres)	\$ 659,100	\$ 65,910	\$ 0	\$ 593,190	\$ 0
Building Demolition (Farm Buildings)	\$ 16,500	\$ 1,650	\$ 0	\$ 14,850	\$ 0
Industrial Business Park Building Package (CIDA)**	\$ 780,000	\$ 0	\$ 0	\$ 0	\$ 780,000
Hangar Construction (east side; 1 buildings - 10 units)	\$ 459,800	\$ 459,800	\$ 0	\$ 0	\$ 0
Access Roadway and Utility Construction (Skyway Drive Extension)	\$ 915,920	\$ 915,920	\$ 0	\$ 0	\$ 0
Taxilane Construction (east side)	\$ 354,400	\$ 35,440	\$ 0	\$ 318,960	\$ 0
Executive Hangar Construction (east side; 2 buildings-8,000 SF each)	\$ 227,700	\$ 0	\$ 0	\$ 0	\$ 227,700
Parallel Taxiway and Segmented Circle Relocation	\$ 615,300	\$ 61,530	\$ 0	\$ 553,770	\$ 0
Taxiway Lighting (west side)	\$ 364,200	\$ 36,420	\$ 0	\$ 327,780	\$ 0
Runway 33 REILs	\$ 21,700	\$ 2,170	\$ 0	\$ 19,530	\$ 0
General Airfield Pavement Maintenance	\$ 500,000	\$ 125,000	\$ 375,000	\$ 0	\$ 0
ALP Update	\$ 50,000	\$ 5,000	\$ 0	\$ 45,000	\$ 0
<b>Subtotal Stage II</b>	<b>\$ 4,964,620</b>	<b>\$ 1,708,840</b>	<b>\$ 375,000</b>	<b>\$ 1,873,080</b>	<b>\$ 1,007,700</b>
<b>Stage III (2014-2023)</b>					
Access Roadway and Utility Construction (east side)	\$ 1,866,400	\$ 0	\$ 0	\$ 0	\$ 1,866,400
Auto Parking Construction (east side)	\$ 181,540	\$ 181,540	\$ 0	\$ 0	\$ 0
Apron and Taxilane Construction (east side)	\$ 1,584,100	\$ 158,410	\$ 0	\$ 1,425,690	\$ 0
Hangar Construction (east side; 8 buildings-80 units)	\$ 4,615,100	\$ 4,615,100	\$ 0	\$ 0	\$ 0
Conventional & FBO Hangar Construction (east side; 3 buildings-15,000 SF ea)	\$ 4,315,500	\$ 4,315,500	\$ 0	\$ 0	\$ 0
Industrial Business Park Building Package (CIDA)**	\$ 780,000	\$ 0	\$ 0	\$ 0	\$ 780,000
Runway Lighting Upgrade to LED	\$ 365,600	\$ 36,560	\$ 0	\$ 329,040	\$ 0
General Airfield Pavement Maintenance	\$ 500,000	\$ 125,000	\$ 375,000	\$ 0	\$ 0
Master Plan Update	\$ 150,000	\$ 15,000	\$ 0	\$ 135,000	\$ 0
<b>Subtotal Stage III</b>	<b>\$ 14,358,240</b>	<b>\$ 9,447,110</b>	<b>\$ 375,000</b>	<b>\$ 1,889,730</b>	<b>\$ 2,646,400</b>
<b>Cumulative Total =</b>	<b>\$ 31,356,240</b>	<b>\$ 13,768,490</b>	<b>\$ 1,177,500</b>	<b>\$ 6,175,050</b>	<b>\$ 10,235,200</b>

\* ELIGIBILITY FOR FAA OR STATE FUNDING DOES NOT INSURE THAT FUNDS WILL BE AVAILABLE OR GRANTED FOR THE PROJECT.

\*\* COSTS OBTAINED FROM CIDA MASTER PLAN FOR SCAPOOSE AIRPARK INDUSTRIAL BUSINESS PARK.

- ALL COST ESTIMATES ARE IN 2003 DOLLARS.

- TOTAL COSTS INCLUDE CONSTRUCTION, TEMPORARY FLAGGING AND SIGNING, CONSTRUCTION STAKING, TESTING, ENGINEERING, ADMINISTRATION, AND CONTINGENCY, AS APPLICABLE.

- DETENTION AND WATER QUALITY COSTS ARE INCLUDED FOR NEW IMPERVIOUS SURFACES PER COLUMBIA COUNTY REQUIREMENTS.

- SEPTIC COSTS INCLUDED FOR ALL NEW HANGAR DEVELOPMENTS.



Attachment A  
**FUNDING & AIRPORT REVENUE ANALYSIS**

---

## ***FUNDING OF THE DEVELOPMENT PROGRAM***

The development program outlined in the previous table will not exclusively rely upon the Port of St. Helens for funding. In fact, most public airport development projects are dependent on other sources for at least a portion of capital improvement funding. In virtually all cases, the primary source for airport development funds is the aviation user.

It must be recognized that long range feasibility analyses must be based on many assumptions. In practice, projects will be undertaken when demand actually warrants, rather than in accordance with a proposed schedule developed 20 years or more in advance. Further, the actual financing of capital expenditures will be a function of airport circumstances at the time of project implementation. As a result, the assumptions and analyses prepared here must be viewed in the context of their primary purpose: to examine whether there is a reasonable expectation that recommended improvements will be financially feasible and implementable.

### **FEDERAL GRANTS**

The United States Congress has long recognized the need to develop and maintain a system of aviation facilities across the nation for the purpose of national defense and promotion of interstate commerce. Various grants-in-aid programs to public airports have been established over the years for this purpose. The current program is the Airport Improvement Program (AIP). AIP has been reauthorized several times since its initial enactment in 1982. For this analysis, it is assumed that a similar federal program will continue throughout the planning period, as has been the case since the 1940s.

The source for AIP funds is the Aviation Trust Fund. The Trust Fund is the depository for all federal aviation taxes such as those on airline tickets, aviation fuel, lubricants, tires and tubes, aircraft registrations, and other aviation-related fees. The funds are distributed under appropriations set by Congress to all airports in the United States which have certified eligibility. The distribution of grants is administered by the Federal Aviation Administration (FAA).

In Oregon, general aviation airport development projects that meet FAA's eligibility requirements can receive funding from AIP. Property acquisition and airfield, terminal, aprons, and access road improvements are examples of items eligible for funding. At this time proposed Federal Legislature could make hangar and fueling facilities eligible for AIP funding.

A primary feature of AIP funding which must be recognized and properly considered is that these funds are distributed on a priority basis. These priorities are established by

each FAA regional office based upon the number and dollar amount of assistance applications. The program provides 75 to 95 percent funding for eligible projects at airports around the country.

The primary feature of AIP discretionary funds is that these funds are distributed on a priority basis. These priorities are established by each FAA regional office based upon the number and dollar amount of applications received. Since the program offers 95 percent or more funding for eligible projects at smaller airports, it is essential to most public airport development programs. The AIP recently expanded its eligibility to fund T-Hangars and fueling facilities. This will greatly enhance the financial viability of all GA airports. As a result, Scappoose Industrial Airpark will be competing with other airports in Oregon and the FAA Northwest Mountain Region for discretionary funds.

If the funding is not forthcoming in the form of AIP grants, then projects will either be delayed or require funding from other sources. Therefore, the Port of St. Helens should work with the FAA to solicit funding for priority projects.

## **STATE FUNDING**

In support of the state airport system, the state of Oregon also participates in airport improvement projects through the Financial Aid to Municipalities (FAM). Presently, the maximum yearly state contribution is \$10,000.

The state of Oregon also recognizes the importance of pavement maintenance by inspecting system airports on a three-year rotating basis. Once identified as a pavement maintenance-eligible item, the state participates with the airport sponsor on a percentage basis to perform pavement surface improvements. The percent of sponsor participation for a Category 2 general aviation airport (the designation for Scappoose Industrial Airpark) is 10 percent.

## **LOCAL FINANCING**

The capital improvement program table summarizes the eligibility of the airport development for state and federal funds. After consideration is given to available grants, the remaining costs of airport development are the responsibility of the airport sponsor. For major airport development projects, this will typically require financing in the form of a bond program. Ideally, a financing package is established and net airport operating income is utilized to retire the debt service. The following section will analyze the program based upon a reasonable rates-and-charges schedule.

## **AIRPORT REVENUE ANALYSIS**

Operating revenues generated at Scappoose Industrial Airpark can generally be categorized into one of the following two primary sources:

- Activity-Related Fees
- Airport Leases

The contribution of each of these primary revenue sources to total operating revenue at the airport will be examined in the following sections. Current rates and leasing policies will also be examined and compared to national averages, selective airports in the western U.S. as well as 3 airports in Oregon and Southwest Washington that are comparable to Scappoose. Prior to completion of the Final Master Plan, a revenue and expense analysis will be presented based on the final Airport Capitol Improvement Program as approved by the Port Commission.

### **ACTIVITY-RELATED FEES**

Activity-related fees are revenues generated through the use of airport facilities and/or services. These fees are generally considered as revenues that are collected by the Port from individuals or businesses for short-term use of Port-owned and managed facilities.

Activity-related fees at Scappoose Industrial Airpark have been established by the Port of St. Helens as follows:

- Open Hangar Building ..... \$60.00
- East Side Ten Unit Hangar Building ..... \$100.00
- East Side Five Unit Hangar Building ..... \$113.00
- West Side Interior Hangars ..... \$127.00
- West Side End Hangars ..... \$150.00
- Building (W-9) -- West Side Interior Hangar ..... \$150.00  
    End Hangar..... \$170.00
- Newest Building (W-10) -- West Side Interior ..... \$165.00  
    End Hangar..... \$185.00
- Tie-Down Fee ..... \$21.00
- Land Lease..... \$0.015/sq.ft./month  
    \$0.18/sq.ft./year

The activity-related revenues (exclusive of the land leases) were estimated at approximately \$189,476 for FY 2002/2003. This represented 51 percent of total Industrial Airpark revenues.

## AIRPORT LEASES

Other airport revenues are generated through long-term leases of buildings and land on the airport. In general, these leases range from one to 30 years. Many are adjusted annually based upon the current consumer price index (cpi). Extended leases can allow individuals or private businesses to amortize their investments over the term of the lease. Current leases on the airport are summarized below (adjustments may have taken place since the leases were originally collected by the consultant for this analysis):

- Sherpa Aircraft Manufacturing .....\$4,145/month/cpi adj.
- Oregon Aero Inc.....\$3,476/month/cpi adj.
- Composites Unlimited .....\$2,750/month/cpi adj.
- Sportcopter Inc.....\$2,514/month/cpi adj.
- TransWestern Aviation .....\$303/month
- Northwest Antique Airplane Club...\$50/month/adjust to \$75-100
- Schrock/Bell-land lease .....\$100/month/cpi adj.
- Ernie Happala-pasture lease .....\$575/year
- Rosanne Jones/Frank Beran-residential .....\$1,050/month
- Keven/Tracie Feakin-residential .....\$495/month
- Aaron Lee-land lease .....\$100/month

In addition to the above-listed leases, the Port also derives revenue from West Lane and Airport Road rentals and National Weather Service. Combined, the airport leases provided approximately \$182,512 in revenue for FY 2002/2003. This represented 49 percent of Industrial Airpark revenues.

Lease rates on the airport may vary by tenant based upon the condition of the facility being leased, the activities conducted on the site, and other factors. No gross receipts are received by the Port from tenants and no fuel flowage fees are currently being collected.

## RATES AND CHARGES COMPARISON

The objective of the rates and charges comparison is to examine existing revenue sources and to compare them against comparable sources from other airports and national averages. While activity-related fees and leasing rates vary by airport, there are common practices that generally promote maximized revenue generation. Furthermore, by comparing market conditions and the rates charged for airport services at Scappoose Industrial Airpark to average rates or other comparable airports, potential rate adjustments may be identified for the airport.

National surveys are conducted annually by the American Association of Airport Executives (AAAE) to identify current rates and charges at airports choosing to participate in the survey. Responding airports are categorized by type and size so that national averages can be identified for airports based upon their general size. The most recent surveys received a response from nearly 350 airports, with nearly two-thirds in the category of commercial service airports.

While specific rates and charges vary by airport based upon local market conditions, common practices used to develop the rates tend to make them somewhat comparable region to region. For this reason, local rates and charges were compared against five other comparable airports located in the western United States, but outside of major metropolitan areas. In addition, Port Staff conducted site visits and surveys of McMinnville and Corvallis, Oregon and Pearson, Washington Airports. Rates and changes were also compared with these local facilities. (see detail results in Appendix).

Land leases often use a market-based approach to determine lease rates where leased areas and the rates charged for those areas are determined by location on the airport. For example, a plot of land having excellent airfield access, located proximate to the airport's FBO, and having excellent landside access would be leased at a rate higher than other locations. Annual adjustments to land lease rates, as well as many other charges, are typically based on annual changes to the consumer price index. When hangars and buildings are financed by the airport sponsor, tenants are charged a rate that is based on ground lease rates in addition to a building rental rate. In some cases, hangar development may be financed privately with the airport sponsor implementing a land lease for the life of amortization on the building, with reversion of the building to the airport sponsor following the amortization period. These represent standard practices within the airport management industry.

The average rates and charges from the AAAE survey, specific rates identified for the five comparable airports in the western US are summarized as follows: (These five airports are Bakersfield and Calexico, California, Flagstaff, Lake Havasu, and Prescott, Arizona.)

### Improved Ground Rental Rates

- AAAE National Average \$0.23/sq.ft./year
  
- Western U.S.
  - Airport B \$0.24/sq.ft./year
  - Airport C \$0.30/sq.ft./year
  - Airport F \$0.15-0.25/sq.ft./year
  - Airport L \$0.27/sq.ft./year
  - Airport P \$0.22/sq.ft./year



- Local Airports
  - McMinnville Not Obtained
  - Pearson Not Obtained
  - Corvallis \$0.19/sq.ft./year
- Scappoose Industrial Park \$0.18/sq.ft./year

**T-Hangar Rental Rates**

- AAAE National Average \$165/month
- Western U.S.
  - Airport B \$250/month
  - Airport C \$226/month
  - Airport F \$230/month
  - Airport L \$340/month
  - Airport P \$177/month
- Local Airports
  - McMinnville \$225/month
  - Pearson \$252-374/month
  - Corvallis \$136/month
- Scappoose Industrial Park \$127-185/month

**Fuel Flowage Fees**

- AAAE National Average \$0.07/gallon
- Western U.S.
  - Airport B \$0.06/gallon
  - Airport C None
  - Airport F \$0.07/gallon
  - Airport L \$0.08/gallon
  - Airport P None
- Local Airports
  - McMinnville \$0.03-0.05/gallon
  - Pearson \$0.05/gallon
  - Corvallis \$0.06/gallon
- Scappoose Industrial Park None

\* Information from Oregon Department of Aviation Summary November 2002

## **Tie Down Rates**

- AAAE/Western U.S. Average- A national average and detailed information from the 5 airports studied were not given in survey- a sampling indicated a wide range of rates that varied from \$10-72/month.
- Local Airports
  - McMinnville \$25/month
  - Pearson \$37/month
  - Corvallis \$23/month
- Scappoose Industrial Park \$21/month

Scappoose Industrial Airpark compares favorably to other airports in ground rentals, T-hangar rentals, and Tie Down rates, although the older hangar rentals are falling below the national average. The Port of St. Helens would realize significant revenue enhancement with the collection of a fuel flowage fee.

Based on the local airport survey the Port staff recommended rate increases to the Port Commission on July 24<sup>th</sup>, 2003. A 10% rate increase on the West 1-8 hangars and tie down fees was approved and went into affect on September 1<sup>st</sup>, 2003. The additional annual revenue generated for these new rates in over \$13,000.

## **OTHER FINANCIAL OPPORTUNITIES**

Promoting new development on the airport property will improve the airport's financial opportunities. The master plan study identifies specific infrastructure development projects that will allow the airport to better serve its users, including the Industrial Business Park and the availability of parcels for executive and corporate hangar development. In addition to the projects identified in the master plan study, the Port of St. Helens should continue to promote additional tenant development on the airport property. Although it is difficult to identify in specific detail the type of development that may arise at the airport, there are general categories of development that should be considered.

## **AVIATION DEVELOPMENT**

Aviation development represents a two-fold means for improving an airport's operating income: direct lease rates or user fees, and revenue generated through increased activity on the airfield (fuel sales and/or gross receipts). Aviation development opportunities for Scappoose Industrial Airpark include the development of additional T-hangars, executive hangars, and conventional hangars.

The majority of existing hangars on the airfield are owned by the Port of St. Helens and rented to aircraft owners at various rates depending on the size and age of the structure. All available hangar units at the airport are currently leased and the airport maintains a hangar waiting list of aircraft owners wishing to locate on the airfield. It appears that there is sufficient demand to justify the construction of additional hangars.

New hangars will likely generate additional activity; therefore, the Port should pursue development of the hangars as soon as property can be readied for development. The Port should take maximum opportunity of federal, state, or local economic development funding in facility development, even though federal participation is limited to infrastructure and taxiway development.

## **NON-AVIATION DEVELOPMENT**

Where aviation development opportunities do not exist, non-aviation development may represent a means for generating additional revenues. A good example is the proposed development of the Industrial Business Park, on a parcel which has limited access to the airfield. Many non-aviation uses that develop on airport property are airport related, but do not necessarily need to be located on airport property. They do so, based upon the availability of sites, convenience, and other market considerations.

As much as practical, the non-aviation properties which develop on airport property should be developed in ways that enhance the air operations and support those functions that are directly dependent upon airport services. The Port of St. Helens should give priority consideration to firms that are aviation-oriented. However, this should not preclude using their available sites to attract companies in the competition for economic development. Creating strong business activities near the airport will create beneficial effects and a favorable climate for the potential attraction of aviation-related companies.

## **SUMMARY**

As an essential element of the local, regional, and national transportation system, Scappoose Industrial Airpark functions as an economic catalyst for the local area. As such, it should be developed to reflect the functional needs of the airport in the future, while also designating the areas which are available to enhance the local economic benefit of the airport. Airport master planning efforts have attempted to maximize existing and future property in an efficient manner, while serving projected demands throughout the planning period. These goals can only be obtained if the Port continues to maximize revenue potential through its rates and charges and utilizes the federal airport improvement program (AIP) on all eligible projects, as identified in the airport

capital improvement program (ACIP). In summary, the planning process requires that the Port of St. Helens continually monitor the need for new or rehabilitated facilities, since applications for federally eligible projects must be submitted with the FAA each year. The short-term program included in the ACIP will need to be updated each year to reflect the highest priority projects under consideration for funding.

**Cash Flow Analysis  
Scappoose Industrial Airpark**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<b>Revenues</b>																				
<i>Industrial Airpark Revenues(A)</i> (Existing Facilities/Leases-adj. 3%/yr. for CPI)	\$904,932	\$932,080	\$960,042	\$988,844	\$1,018,509	\$1,049,064	\$1,080,536	\$1,112,952	\$1,146,341	\$1,180,731	\$1,216,153	\$1,252,638	\$1,290,217	\$1,328,923	\$1,368,791	\$1,409,855	\$1,452,150	\$1,495,715	\$1,540,586	\$1,586,804
<i>Industrial Airpark Revenues(B)</i> (Future T-Hangars/adj. 3%/yr.)	\$0	\$31,680 16 units	\$32,630	\$43,212 8 units	\$56,872 10 units	\$58,578	\$73,452 10 units	\$75,655	\$91,840 10 units	\$94,595	\$112,196 10 units	\$115,561	\$150,352 20 units	\$154,862	\$176,123 10 units	\$181,407	\$222,104 20 units	\$228,767	\$254,331 10 units	\$261,961
<b>Total Industrial Airpark Revenues</b>	<b>\$904,932</b>	<b>\$963,760</b>	<b>\$992,673</b>	<b>\$1,032,056</b>	<b>\$1,075,381</b>	<b>\$1,107,642</b>	<b>\$1,153,988</b>	<b>\$1,188,607</b>	<b>\$1,238,181</b>	<b>\$1,275,326</b>	<b>\$1,328,349</b>	<b>\$1,368,199</b>	<b>\$1,440,568</b>	<b>\$1,483,785</b>	<b>\$1,544,914</b>	<b>\$1,591,262</b>	<b>\$1,674,254</b>	<b>\$1,724,482</b>	<b>\$1,794,917</b>	<b>\$1,848,764</b>
<b>Expenses</b>																				
<i>Materials/Services/Capital</i> (Adjusted 1.5%/yr.)	\$280,070	\$284,271	\$288,535	\$292,863	\$297,256	\$301,715	\$306,241	\$310,834	\$315,497	\$320,229	\$325,033	\$329,908	\$334,857	\$339,880	\$344,978	\$350,152	\$355,405	\$360,736	\$366,147	\$371,639
<i>Utilities-City of Scappoose</i> (Adjusted 2.0%/yr.)	\$76,092	\$77,614	\$79,166	\$80,749	\$82,364	\$84,012	\$85,692	\$87,406	\$89,154	\$90,937	\$92,756	\$94,611	\$96,503	\$98,433	\$100,402	\$102,410	\$104,458	\$106,547	\$108,678	\$110,852
<i>Administration</i> (Adjusted 3.0%/yr.)	\$43,896	\$45,213	\$46,569	\$47,966	\$49,405	\$50,887	\$52,414	\$53,987	\$55,606	\$57,274	\$58,993	\$60,762	\$62,585	\$64,463	\$66,397	\$68,389	\$70,440	\$72,553	\$74,730	\$76,972
<i>Existing Debt Service</i>																				
92 Bond Debt	\$81,960	\$81,960	\$81,960	\$81,960	\$81,960	\$81,960	\$81,960	\$81,960												
95A Bond Debt	\$71,928	\$71,928	\$71,928	\$71,928	\$71,928	\$71,928	\$71,928	\$71,928	\$71,928	\$71,928	\$71,928	\$71,928								
96A Bond Debt	\$18,216	\$18,216	\$18,216	\$18,216	\$18,216	\$18,216	\$18,216	\$18,216	\$18,216	\$18,216	\$18,216	\$18,216	\$18,216							
99 Bond Debt	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160	\$32,160
OEDD 173 (2002)	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984	\$18,984
<i>Future Debt Service</i>																				
05 Bond Debt (6%)		\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449	\$67,449
07 Bond Debt (6%)				\$32,213	\$32,213	\$32,213	\$32,213	\$32,213	\$32,213	\$32,213	\$32,213	\$32,213	\$32,213	\$32,213	\$32,213	\$32,213	\$32,213	\$32,213	\$32,213	\$32,213
08 Bond Debt (6%)				\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295
10 Bond Debt (6%)					\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295
12 Bond Debt (6%)						\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295
14 Bond Debt (6%)							\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295
16 Bond Debt (6%)								\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295
18 Bond Debt (6%)									\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295
20 Bond Debt (6%)										\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295
22 Bond Debt (6%)											\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295	\$47,295
<b>Total Industrial Airpark Expenses</b>	<b>\$623,306</b>	<b>\$697,795</b>	<b>\$704,968</b>	<b>\$744,489</b>	<b>\$799,231</b>	<b>\$806,820</b>	<b>\$861,847</b>	<b>\$869,727</b>	<b>\$843,093</b>	<b>\$851,276</b>	<b>\$906,912</b>	<b>\$843,484</b>	<b>\$930,329</b>	<b>\$939,160</b>	<b>\$995,456</b>	<b>\$972,470</b>	<b>\$1,078,219</b>	<b>\$1,087,753</b>	<b>\$1,125,783</b>	<b>\$1,135,690</b>
<b>Net Income/Loss</b>	<b>\$281,626</b>	<b>\$265,965</b>	<b>\$287,705</b>	<b>\$287,566</b>	<b>\$276,149</b>	<b>\$300,822</b>	<b>\$292,140</b>	<b>\$318,880</b>	<b>\$395,088</b>	<b>\$424,050</b>	<b>\$421,437</b>	<b>\$524,715</b>	<b>\$510,239</b>	<b>\$544,626</b>	<b>\$549,459</b>	<b>\$618,791</b>	<b>\$596,035</b>	<b>\$636,729</b>	<b>\$669,134</b>	<b>\$713,074</b>
<b>Total Capital Improvement Projects</b>	<b>\$2,672,780</b>	<b>\$3,766,900</b>	<b>\$3,936,100</b>	<b>\$1,459,700</b>	<b>\$190,000</b>	<b>\$992,924</b>	<b>\$992,924</b>	<b>\$992,924</b>	<b>\$992,924</b>	<b>\$992,924</b>	<b>\$1,435,730</b>	<b>\$1,435,730</b>	<b>\$1,435,730</b>	<b>\$1,435,730</b>	<b>\$1,435,730</b>	<b>\$1,435,730</b>	<b>\$1,435,730</b>	<b>\$1,435,730</b>	<b>\$1,435,730</b>	<b>\$1,435,730</b>
<b>AIP Eligible Projects (+)</b>	<b>\$1,150,500</b>	<b>\$446,900</b>	<b>\$774,000</b>	<b>\$219,900</b>	<b>\$0</b>	<b>\$416,240</b>	<b>\$416,240</b>	<b>\$416,240</b>	<b>\$416,240</b>	<b>\$416,240</b>	<b>\$416,240</b>	<b>\$416,240</b>	<b>\$228,030</b>	<b>\$228,030</b>	<b>\$228,030</b>	<b>\$228,030</b>	<b>\$228,030</b>	<b>\$228,030</b>	<b>\$228,030</b>	<b>\$228,030</b>
<b>Non-AIP Eligible Projects (+)</b>	<b>\$1,522,280</b>	<b>\$3,320,000</b>	<b>\$3,162,100</b>	<b>\$1,239,800</b>	<b>\$190,000</b>	<b>\$576,684</b>	<b>\$576,684</b>	<b>\$576,684</b>	<b>\$576,684</b>	<b>\$576,684</b>	<b>\$576,684</b>	<b>\$576,684</b>	<b>\$1,207,700</b>	<b>\$1,207,700</b>	<b>\$1,207,700</b>	<b>\$1,207,700</b>	<b>\$1,207,700</b>	<b>\$1,207,700</b>	<b>\$1,207,700</b>	<b>\$1,207,700</b>
<b>Federal Grants (-)</b>	<b>\$1,092,975</b>	<b>\$424,555</b>	<b>\$735,300</b>	<b>\$208,905</b>	<b>\$0</b>	<b>\$374,616</b>	<b>\$374,616</b>	<b>\$374,616</b>	<b>\$374,616</b>	<b>\$374,616</b>	<b>\$374,616</b>	<b>\$374,616</b>	<b>\$205,227</b>	<b>\$205,227</b>	<b>\$205,227</b>	<b>\$205,227</b>	<b>\$205,227</b>	<b>\$205,227</b>	<b>\$205,227</b>	<b>\$205,227</b>
<b>State Grants (-)</b>	<b>\$0</b>	<b>\$240,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$142,500</b>	<b>\$75,000</b>	<b>\$75,000</b>	<b>\$75,000</b>	<b>\$75,000</b>	<b>\$75,000</b>	<b>\$75,000</b>	<b>\$75,000</b>	<b>\$37,500</b>	<b>\$37,500</b>	<b>\$37,500</b>	<b>\$37,500</b>	<b>\$37,500</b>	<b>\$37,500</b>	<b>\$37,500</b>	<b>\$37,500</b>
<b>Private/Bond Financing (-)</b>	<b>\$1,522,280</b>	<b>\$3,000,000</b>	<b>\$2,439,600</b>	<b>\$1,239,800</b>	<b>\$0</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>	<b>\$293,500</b>
<b>Local (Port) Share</b>	<b>\$57,525</b>	<b>\$102,345</b>	<b>\$761,200</b>	<b>\$10,995</b>	<b>\$47,500</b>	<b>\$249,808</b>	<b>\$249,808</b>	<b>\$249,808</b>	<b>\$249,808</b>	<b>\$249,808</b>	<b>\$249,808</b>	<b>\$249,808</b>	<b>\$466,853</b>	<b>\$466,853</b>	<b>\$466,853</b>	<b>\$466,853</b>	<b>\$466,853</b>	<b>\$466,853</b>	<b>\$466,853</b>	<b>\$466,853</b>
<b>Net Cash Flow</b>	<b>\$224,101</b>	<b>\$163,620</b>	<b>-\$473,495</b>	<b>\$276,571</b>	<b>\$228,649</b>	<b>\$51,014</b>	<b>\$42,332</b>	<b>\$69,072</b>	<b>\$145,280</b>	<b>\$174,242</b>	<b>-\$45,416</b>	<b>\$57,862</b>	<b>\$43,386</b>	<b>\$77,773</b>	<b>\$82,606</b>	<b>\$151,938</b>	<b>\$129,182</b>	<b>\$169,876</b>	<b>\$202,281</b>	<b>\$246,221</b>

rev. 4/19/04

July 24, 2003

TO: Port of St. Helens Commission  
FROM: Kim Shade  
RE: Hangar Rate Increase Recommendation

**History**

The last hangar rate increase became effective September 1, 2001. The hangar rates were adjusted 7% to reflect the Consumer Price Index (CPI) for a two year period. T-hangar W-9 rates were not increased because of a clause calling for current rates to remain in effect until August 2005.

Rates were increased 6%, July 1, 1999, to reflect CPI for a two year period. T-hangar W-9 rates were not increased because of a clause calling for current rates to remain in effect until August 2005.

Rates were increased 6%, July 1, 1997, to reflect CPI for a two year period.

I did not find any record of hangar rate increases prior to 1997. It is my understanding, when the Port acquired the airport they consciously set the hangar rates low to attract business. SIA's rates have remained under market since. We now have 19 people on the waiting list for interior hangars and 4 on the list for end hangars.

Hangar W-9 rates are locked until 2005 and W-10 rates are locked until 2007.

The Scappoose Industrial Airpark Advisory Board will discuss this recommendation for a rate increase at their board meeting, July 28<sup>th</sup>.

Staff visited comparable airports and attached is a monthly rate comparison. Corvallis's hangars rates are low. Corvallis does not have a demand for hangars because there are several airports near them who have more desirable private hangars.

**Staff Recommendation**

- **10% hangar rate increase for T-hangars on the east side and W-1 through W-8, effective September 1, 2003.**
- **This will bring our rates closer to comparable market rates and help decrease the airport's annual cash loss.**

**The projected increase is included in the 2003-2004 budget.**

Thank You!

**SCAPPOOSE INDUSTRIAL AIRPARK  
EXISTING AND PROPOSED 10% HANGAR RATE INCREASE**

<b>Hangar Type</b>	<b>Current Rate Effective 9/1/01</b>	<b>Total Current Monthly Rents</b>	<b>10% Increase Rounded</b>	<b>New Rate Effective 9/1/03</b>	<b>Total New Monthly Anticipated</b>
Interior W-1 through W-8 (64)	\$127.00	\$8,128.00	\$13.00	\$140.00	\$8,960.00
End W-1 through W-8 (16)	\$150.00	\$2,400.00	\$15.00	\$165.00	\$2,640.00
Interior W-9 (8)	\$150.00	\$1,200.00	0	\$150.00	\$1,200.00
End W-9 (2)	\$170.00	\$340.00	0	\$170.00	\$340.00
Interior W-10 (8)	\$165.00*	\$1,320.00	0	\$165.00	\$1,320.00
End W-10 (2)	\$185.00*	\$370.00	0	\$185.00	\$370.00
Tie Downs (adv. 9)	\$21.00	\$189.00	\$2.00	\$23.00	\$207.00
<b>MONTHLY TOTALS</b>		<b>\$13,947.00</b>			<b>\$15,037.00</b>

**ADDITIONAL ANNUAL REVENUE GENERATED  
BASED ON 10% RATE INCREASE: \$13,080.00**

July 15, 2003

**SCAPPOGLE INDUSTRIAL AIRPARK  
EXISTING AND PROPOSED RATE INCREASE  
BASED ON ADVERAGE OF McMINVILLE, PEARSON AND CORVALLIS**

<b>Moorage Type</b>	<b>Current Rate Effective 9/1/01</b>	<b>Total Current Monthly Rents</b>	<b>New Rate Effective 7/1/03</b>	<b>Total New Monthly Anticipated</b>
Interior W-1 through W-8 (64)	\$127.00	\$8,128.00	\$204.00	\$13,056.00
End W-1 through W-8 (16)	\$150.00	\$2,400.00	\$245.00	\$3,920.00
Interior W-9 (8)	\$150.00	\$1,200.00	\$150.00	\$1,200.00
End W-9 (2)	\$170.00	\$340.00	\$170.00	\$340.00
Interior W-10 (8)	\$165.00*	\$1,320.00	\$165.00	\$1,320.00
End W-10 (2)	\$185.00*	\$370.00	\$185.00	\$370.00
Tie Downs (adv. 9)	\$21.00	\$189.00	\$28.00	\$189.00
<b>MONTHLY TOTALS</b>		<b>\$13,947.00</b>		<b>\$20,395.00</b>

**ADDITIONAL ANNUAL REVENUE GENERATED  
BASED ON ADVERAGE - RATE INCREASE: \$77,376.00**

April 24, 2001



**SCAPPOOSE INDUSTRIAL AIRPARK  
EXISTING AND PROPOSED HANGAR RATE INCREASE  
BASED ON W-10 RATES**

<b>Moorage Type</b>	<b>Current Rate Effective 9/1/01</b>	<b>Total Current Monthly Rents</b>	<b>Increase Rounded</b>	<b>New Rate Effective 7/1/03</b>	<b>Total New Monthly Anticipated</b>
Interior W-1 through W-8 (64)	\$127.00	\$8,128.00	\$38.00	\$165.00	\$10,560.00
End W-1 through W-8 (16)	\$150.00	\$2,400.00	\$35.00	\$185.00	\$2,960.00
Interior W-9 (8)	\$150.00	\$1,200.00	0	\$150.00	\$1,200.00
End W-9 (2)	\$170.00	\$340.00	0	\$170.00	\$340.00
Interior W-10 (8)	\$165.00*	\$1,320.00	0	\$165.00	\$1,320.00
End W-10 (2)	\$185.00*	\$370.00	0	\$185.00	\$370.00
Tie Downs (adv. 9)	\$21.00	\$189.00	\$1.00	\$22.00	\$198.00
<b>MONTHLY TOTALS</b>		<b>\$13,947.00</b>			<b>\$16,948.00</b>

**ADDITIONAL ANNUAL REVENUE GENERATED  
BASED ON W-10 RATES: \$36,012.00**

April 24, 2001

**SCAPPOOSE INDUSTRIAL AIRPARK  
T-HANGAR MONTHLY RATE COMPARISON  
April 2003**

Hangar	Current Rate Effective 9/1/01	McMinnville	Pearson	Corvallis	Average of McMin. Pearson &
Corvallis					
Interior W-1 through W-8	\$127.00	\$225.00	\$252.00	\$136.00	\$204.00
End W-1 through W-8	\$150.00	\$225.00	\$374.00	\$136.00	\$245.00
Interior W-9	\$150.00*	\$225.00	\$252.00	\$136.00	\$204.00
End W-9	\$170.00*	\$225.00	\$374.00	\$136.00	\$245.00
Interior W-10	\$165.00*	\$225.00	\$252.00	\$136.00	\$204.00
End W-10	\$185.00*	\$225.00	\$374.00	\$136.00	\$245.00
Tie Downs	\$21.00	\$25.00	\$37.00	\$23.00	\$28.00
Comments	120 hangars 40- Tie downs 22 on waiting list \$50 waiting list dep	90 hangars 32 City owned 21- Tie downs 40 on waiting list No waiting list dep.	150 hangars 128 City owned 14 Tie downs 17 on waiting list \$50.00 waiting list dep.	102 hangars 54 are City owned 46-Tie downs vacancies No waiting list dep.	

\*W-9 hangar rate locked until 2005 and W-10 hangar rates locked until 2007.



PORT OF  
ST. HELENS

Attachment B  
**AIRPORT COMPLIANCE**

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## **AIRPORT COMPLIANCE ISSUES**

The FAA recommends that airport sponsors periodically review compliance issues with Grant Assurances made with their last FAA Grant. Issues related to compliance at Scappoose Industrial Airpark include through-the-fence access to the airfield and rates and charges. The following narrative discusses current FAA policy on through-the-fence access. Rates and charges will be added when the preliminary airport capital improvement program is developed.

### **THROUGH-THE-FENCE AIRPORT ACCESS**

There are instances when the owner of a public airport proposed to enter into an agreement which permits access to the public landing area by aircraft based on land adjacent to, but not part of, the airport property. This type of an arrangement is commonly called a through-the-fence operation, whether the perimeter fence is imaginary or real. It is Federal Aviation Administration (FAA) policy to discourage through-the-fence agreements.

The obligation to make an airport available for the use and benefit of the public does not impose any requirement to permit access by aircraft from adjacent property. On the contrary, the existence of such an arrangement has been recognized as an encumbrance upon the airport property itself. Airport obligations arising from federal grant agreements and conveyance instruments apply to dedicated airport land and facilities and not to private property adjacent to the airport, even when the property owner is granted a through-the-fence privilege.

The owner of a public airport is entitled to seek recovery of the initial and continuing costs of providing a public use landing area. The owners of airports receiving federal funds have been required to establish a fee and rental structure designed to make the airports as self-sustaining as possible. Most public airports seek to recover a substantial part of airfield operating costs indirectly through various arrangements affecting commercial activities on the airport. The development of aeronautical businesses on land uncontrolled by the airport owner may give the through-the-fence operation a competitive advantage that will be detrimental to the on-airport operators on whom the airport owner relies for revenue and service to the public. To avoid a potential imbalance, the airport owner may refuse to authorize a through-the-fence operation. In an effort to equalize an imbalance of existing through-the-fence operations, the airport owner should obtain a fair return from off-airport operators in exchange for continuing access to the airport and use of the landing area.

Although airports do not need and should avoid through-the-fence arrangements, circumstances may arise which compel an airport owner to contemplate a through-the-fence operation. In this situation, the airport owner must plan ahead to

formulate a prudent through-the-fence agreement and obtain just compensation for granting access to the airport because the airport is enfranchising a special class of airport users who will be permitted to exercise an exclusive through-the-fence privilege.

In making airport facilities available for public use, the airport owner must make the airport as self-sustaining as possible under the particular circumstances at the airport. The FAA has interpreted the self-sustaining assurance to require airport owners to charge fair market value (FMV) commercial rates for nonaeronautical uses of the airport. In conformity with the self-sustaining principle, it would be appropriate to charge FMV rates to off-airport users for the exclusive privilege of accessing the airport through-the-fence. In formulating a through-the-fence agreement, the airport owner should endeavor to establish terms that are beneficial to the airport. For example, the adjacent developer or landowner should be made to finance the necessary improvements and maintenance of the facilities and infrastructure connecting the adjacent land to the airport's landing area. Recurring payments should be based on use rather than on flat rates. Agreements should contain provisions allowing the airport to terminate through-the-fence access permits for cause.

In addition, the airport owner must restrict the uses that may be made of the adjacent land as a condition for granting a through-the-fence privilege. Private property owners must be asked to enter into agreements that prohibit public aeronautical commercial operations. Simply stated, they should not be allowed to operate as fixed base operators (FBO) offering aeronautical services to the public. Such FBO operations, if allowed, would give private property operators an advantage over on-airport operators. Allowing private property owners to gain a competitive advantage will jeopardize the economic vitality of the airport and impede its ability to remain self-sustaining. Additionally, any economic advantage gained by adjacent property owners will diminish the economic viability of the airport's own aeronautical commercial operators.

Arrangements that permit aircraft to gain access to a public landing area from off-site property introduce safety considerations along with additional hazards that complicate the control of vehicular and aircraft traffic. Airport improvements designed to accommodate access to the airport and landing areas from an off-site location for the sole benefit and convenience of an off-airport neighbor present a substantial and continuing burden to the airport owner. In addition, the airport must contend with legal, insurance, and management implications represented by increased costs, liability, and administrative and operational controls. For the airport owner, it may become an unexpected challenge to balance airport needs with the increasing demands on the airport by off-airport users.

It is FAA policy to strongly discourage any agreement that grants access to public landing areas by aircraft normally stored on adjacent property. Airport owners

must guard against any through-the-fence operation that can become detrimental to the airport and threaten its economic viability. Any agreement for a through-the-fence operation must include provisions making such operations subject to the same federal obligations as tenants on airport property. Furthermore, the airport owner must ensure that the through-the-fence operators contribute a fair share toward the cost of the operation, maintenance, and improvement of the airport and that they do not gain an unfair economic advantage over on-airport operators.



PORT OF  
ST. HELENS

Attachment C  
**FAA COMMENTS**

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U.S. Department  
of Transportation

**Federal Aviation  
Administration**

January 14, 2003

Mr. Paul Langner  
Marine Industrial Manager  
Port of St. Helens  
P. O. Box 598  
St. Helens, Oregon 97051

Seattle Airports District Office  
1601 Lind Avenue, S. W., Ste 250  
Renton, Washington 98055-4056

Dear Mr. Langner:

Airport Master Plan Update  
Scappoose Industrial Airpark, Scappoose, Oregon  
FAA Review Comments on Working Paper Two  
AIP Project No. 3-41-0056-12

I have reviewed the Aviation Demand Forecasts working paper submitted by the consultants for the Airport Master Plan Update for Scappoose Industrial Airpark (SPB). The report is well-done, and the study project appears to be off to a good start. My only specific review comments at this time are as follows:

1. It would be helpful to have the Inventory chapter completed in draft form at the outset of the study's review process. The background information in that chapter would provide the reader with an informative basis for evaluating subsequent working papers and would outline the framework for the remainder of the study.
2. **Page 2-12, para. 3** – How did the consultants arrive at the preferred forecast? The only explanation is that it “falls in between” other forecasts. If it was some form of averaging, say so. If not, then explain.
3. **Exhibit 2C** – The “preferred” forecasts of based aircraft (Table 2H) and aircraft operations (Table 2K), respectively, are hereby approved and accepted for Federal Aviation Administration (FAA) purposes.

I hope to be able to attend one or more future meetings of the Planning Advisory Committee (PAC) during the course of this study project. Please call me at (425) 227-2652 if I can be of further assistance.

Sincerely,

Don M. Larson  
Airport Planner

cc:  
Rainse Anderson, W&H Pacific





U.S. Department  
of Transportation

Federal Aviation  
Administration

Seattle Airports District Office  
1601 Lind Avenue, S. W., Ste 250  
Renton, Washington 98055-4056

September 9, 2003

Mr. Paul Langner  
Marine Industrial Manager  
Port of St. Helens  
P. O. Box 598  
St. Helens, Oregon 97051

Dear Mr. Langner:

Airport Master Plan Update  
Scappoose Industrial Airpark, Scappoose, Oregon  
FAA Review Comments on Working Paper Four+  
AIP Project No. 3-41-0056-12

I have reviewed the Airport Plans working paper and a preliminary financial document submitted by the consultants for the Airport Master Plan Update for Scappoose Industrial Airpark (SPB). My review comments at this time are as follows:

1. **Exhibit 4B** – I assume that the final version of the noise contours will include either a USGS map or photo base.

2. **Exhibit 4C:**

- a. Pavement marking maintenance (2007) is not eligible for Airport Improvement Program (AIP) funding.
- b. General airfield pavement maintenance (Stage II & III) is not AIP-eligible. If *rehabilitation* is meant, then specify which pavements and quantities.
- c. Enclosed for your use is a copy of the Scappoose capital improvement program (CIP) on file with the FAA. As of the date of publication of the Master Plan Update, the first 5 years of its development program should be essentially the same as our CIP for the airport. This may involve revisions to the draft list in the working paper, the submitted CIP, or both. It should be kept in mind, that once approved and submitted by the Port of St. Helens, we will consider the first 5 years of the Master Plan Update's development program *to be* the CIP as of that date, and will revise our records accordingly.

3. Task 6 of the approved scope of work states, "A detailed cash flow analysis of operating and capital revenues and expenses will be prepared". Presumably, this will be included in the final draft of the financial working paper (chapter 5?).

I will defer detailed review of the airport layout plan (ALP) set of drawings pending receipt of four additional sets for coordination with the other FAA divisions (I will be out of the office September 15-26). Please call me at (425) 227-2652 if I can be of further assistance.

Sincerely,

Don M. Larson  
Airport Planner

Enclosure

cc:  
Rainse Anderson, W&H Pacific

Mesic, Lorelei

---

From: Don.Larson@faa.gov  
Sent: Wednesday, November 12, 2003 10:32 AM  
To: langner@portsh.org  
Cc: williamson@portsh.org; Anderson, Rainse; Mesic, Lorelei;  
stevewagner@coffmanassociates.com; Bill.Watson@faa.gov  
Subject: Scappoose Industrial Park



Scappoose 2003  
ALP Review Comm..

Paul,

Bill Watson noticed that the proposed industrial park as depicted on the draft ALP would be on land the updated Exhibit 'A' shows was acquired with grant funds for airport development. I had not picked up on that in my review and comments letter of 10/27. He told me that he had informed you that non-aeronautical development on such grant land is not allowed. We do want the Port to retain the property in question. There are a couple of options for this: (1) Show the area on the ALP for future aeronautical development, i.e., additional hangars, FBO, etc.; or (2) Keep the proposed industrial park as depicted on the draft ALP by transferring the grant obligation to future land acquisition. This latter approach could be accomplished by appraising the existing property at current fair market value at such time as the Port is ready to purchase AIP-eligible property on the other side of the airport. The appraised value of the existing property to be used for industrial development would then be deducted from the Federal share of the new land being acquired. Non-aeronautical development on the existing property could not commence until AFTER the new land has been acquired for planned airport development. If you have any questions, let me know.

Don

----- Forwarded by Don Larson/ANM/FAA on 11/12/2003 10:13 AM -----

Don Larson  
10/27/2003 10:45 AM  
reanderson@whnpacific.com, lmesic@whnpacific.com,  
AM

To: langner@portsh.org  
cc: williamson@portsh.org,  
stevewagner@coffmanassociates.com  
Subject: Scappoose ALP

(See attached file: Scappoose 2003 ALP Review Comments.doc)



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

**Seattle Airports District Office**  
1601 Lind Avenue, S. W., Ste 250  
Renton, Washington 98055-4056

October 27, 2003

Mr. Paul Langner  
Marine Industrial Manager  
Port of St. Helens  
P. O. Box 598  
St. Helens, Oregon 97051

Dear Mr. Langner:

Draft Airport Layout Plan (ALP) Review Comments  
Scappoose Industrial Airpark  
AIP Project No. 3-41-0056-12

I have reviewed the draft ALP set of drawings for Scappoose Industrial Airpark. My preliminary review comments are enclosed and, upon receipt of the final list of projects (revised Exhibit 4C) for the 20-year planning period, will be forwarded to other Federal Aviation Administration (FAA) divisions reviewing the ALP and conducting an aeronautical study on the proposed improvements. These comments are provided at this time as a convenience to the consultants and to expedite revisions to the drawings.

The plans should not be finalized for submittal until the aeronautical study has been completed, as additional revisions may be necessary. I will forward final comments upon completion of the aeronautical study. Please call me at (425) 227-2652 if I can be of further assistance.

Sincerely,

Don M. Larson  
Airport Planner

1 Enclosure

cc:  
Rainse Anderson, W&H Pacific

SEA641:DMLARSON:dml:10/27/03:X2652:FILE: Scappoose:Mc

**FAA REVIEW COMMENTS  
DRAFT AIRPORT LAYOUT PLAN (ALP) SET  
SCAPPOOSE INDUSTRIAL AIRPARK**

**Sheet 1 – TITLE SHEET**

1. The month of submittal for final approval (which will probably be January, 2004) should be used.

**Sheet 2 – AIRPORT LAYOUT PLAN**

2. Show the location of the airport rotating beacon (and include in the Legend and Runway Data table: visual approach aids).
3. Show the localizer array and equipment shelter.
4. Runway end identification lights (REIL's) are shown on the drawing but not in the Legend.
5. Automobile parking should be planned adjacent to the future hangar areas.
6. It is unclear from the drawing whether the proposed Industrial Business Park would include taxilane access west of the existing Sky Way Drive, particularly as a portion of that street is planned to be closed at designated locations for taxiing aircraft ("taxiing" is misspelled). Only one gate is shown (half-toned, should be bold) south of that location. Also, a future road appears to connect to the parallel taxiway. In order to prevent airfield incursions by unauthorized vehicles, at-grade connections between public roads and taxilanes or other aircraft movement areas must not be permitted.
7. In general, there is too much linework clutter on the drawing. For example, the numbered facility circles could be smaller, and it is not necessary to show a line connecting to every T-hangar building in a complex (or even to any).

**Sheet 5 – RUNWAY 15/33 PROTECTION ZONE PLAN & PROFILES**

8. See comment nos. 5 and 6.

**ALL OTHER DRAWINGS**

9. Revisions must be made where appropriate for consistency with the above comments. Please make needed corrections and/or provide information from available sources to the extent specified in the approved scope of work.

## Mesic, Lorelei

---

**From:** Anderson, Rainse  
**Sent:** Monday, November 24, 2003 12:26 PM  
**To:** 'Don.Larson@faa.gov'  
**Cc:** Paul Langner; Mesic, Lorelei; stevewagner@coffmanassociates.com; williamson@portsh.org  
**Subject:** RE: Scappoose Industrial Park

Don,

Thanks for the direction. We'll figure things out on this end.

Rainse

-----Original Message-----

**From:** Don.Larson@faa.gov [mailto:Don.Larson@faa.gov]  
**Sent:** Friday, November 21, 2003 3:21 PM  
**To:** Anderson, Rainse  
**Cc:** Bill.Watson@faa.gov; Paul Langner; Mesic, Lorelei; stevewagner@coffmanassociates.com; williamson@portsh.org  
**Subject:** RE: Scappoose Industrial Park

Areas 9 & 11 are bisected with lines on the Exhibit 'A' (submitted by the Port in 1997), but there is no explanation or information other than that Area 9 was funded by ADAP-02 and Area 11 was funded by AIP-01. If there is additional information to show that grant land was only a part of those parcels, the Port needs to provide documentation to that effect (we don't keep detailed records that far back, just summaries).

"Anderson,  
Rainse"  
<langner@portsh.org>, Don Larson/ANM/FAA@FAA  
<ReAnderson@whpac  
Lorelei" <LMesic@whpacific.com>,  
Watson/ANM/FAA@FAA  
11/21/2003 01:13  
PM

To: "Paul Langner"  
cc: <williamson@portsh.org>, "Mesic,  
<stevewagner@coffmanassociates.com>, Bill  
Subject: RE: Scappoose Industrial Park

Don,

We've been discussing this issue with the Port and Pete Williamson recalls that the FAA participated in the purchase of the eastern sections and the Port only purchased the western section of parcels 9 and 11. We are checking the Port records but aren't finding a clear picture. Could you please check the FAA archives regarding AIP-01 to help us resolve this issue?

Thank you

Rainse

-----Original Message-----

From: Paul Langner [mailto:langner@portsh.org]  
Sent: Wednesday, November 12, 2003 10:58 AM  
To: Don.Larson@faa.gov  
Cc: williamson@portsh.org; Anderson, Rainse; Mesic, Lorelei;  
stevewagner@coffmanassociates.com; Bill.Watson@faa.gov  
Subject: Re: Scappoose Industrial Park

Understand.

We will be discussing this internally and hope have a clear direction (if possible) following the internal debate on what should happen at the airport.

Thank you and thank Bill Watson for bringing this up now.

I would sure hate to be surprised later.

Paul

Don.Larson@faa.gov wrote:

> Paul,  
> Bill Watson noticed that the proposed industrial park as depicted on the  
> draft ALP would be on land the updated Exhibit 'A' shows was acquired with  
> grant funds for airport development. I had not picked up on that in my  
> review and comments letter of 10/27. He told me that he had informed you  
> that non-aeronautical development on such grant land is not allowed. We do  
> want the Port to retain the property in question. There are a couple of  
> options for this: (1) Show the area on the ALP for future aeronautical  
> development, i.e., additional hangars, FBO, etc.; or (2) Keep the proposed  
> industrial park as depicted on the draft ALP by transferring the grant  
> obligation to future land acquisition. This latter approach could be  
> accomplished by appraising the existing property at current fair market  
> value at such time as the Port is ready to purchase AIP-eligible property  
> on the other side of the airport. The appraised value of the existing  
> property to be used for industrial development would then be deducted from  
> the Federal share of the new land being acquired. Non-aeronautical  
> development on the existing property could not commence until AFTER the new  
> land has been acquired for planned airport development. If you have any  
> questions, let me know.

> Don

> ----- Forwarded by Don Larson/ANM/FAA on 11/12/2003 10:13 AM -----

> Don Larson

To:

langner@portsh.org

10/27/2003 10:45

cc:

williamson@portsh.org, reanderson@whpacific.com, lmesic@whpacific.com,

AM

stevewagner@coffmanassociates.com

Subject: Scappoose ALP

>  
>  
> (See attached file: Scappoose 2003 ALP Review Comments.doc)  
>  
>

---

> Name: Scappoose 2003 ALP  
Review Comments.doc  
> Scappoose 2003 ALP Review Comments.doc Type: WINWORD File  
(application/msword)  
> Encoding: base64





U.S. Department  
of Transportation  
  
Federal Aviation  
Administration

Seattle Airports District Office  
1601 Lind Avenue, S. W., Ste 250  
Renton, Washington 98055-4056

May 12, 2004

Mr. Paul Langner  
Marine Industrial Manager  
Port of St. Helens  
P. O. Box 598  
St. Helens, Oregon 97051

Dear Mr. Langner:

2<sup>nd</sup> Draft Airport Layout Plan (ALP) Review Comments  
Scappoose Industrial Airpark  
AIP Project No. 3-41-0056-12

I have reviewed the revised 2<sup>nd</sup> draft ALP set of drawings for Scappoose Industrial Airpark (SPB). My preliminary review comments are noted below and have been forwarded to other Federal Aviation Administration (FAA) divisions reviewing the ALP and conducting an aeronautical study on the proposed improvements. These comments are provided at this time as a convenience to the consultants and to expedite revisions to the drawings. The plans should not be finalized for submittal until the aeronautical study has been completed, as additional revisions may be necessary. I will forward final comments upon completion of the aeronautical study. I have also reviewed the revised Airport Plans working paper and financial documents for the Airport Master Plan Update report. My review comments are also noted below.

ALP Set

1. On the title sheet, the month of submittal for final approval (which will probably be July or August, 2004) should be used. *Changed to August 2004.*
2. The first set of drawings, submitted in October, 2003, included an updated Exhibit 'A' Property map. That drawing was not included with the latest set of plans. It should be included, and reflect consistency with the existing and future property lines and facilities on the updated ALP drawings. *Has been updated and is included.*

Report

3. On Exhibit 4C, pavement marking maintenance (2006 and 2007) is not eligible for Airport Improvement Program (AIP) funding, nor is auto parking (Stage III). *Deleted from eligibility.*

Please call me at (425) 227-2652 if I can be of further assistance.

Sincerely,

ORIGINAL SIGNED BY  
DON M. LARSON

Don M. Larson  
Airport Planner

cc:  
Rainse Anderson, W&H Pacific

Mesic, Lorelei

---

From: Don.Larson@faa.gov  
Sent: Wednesday, May 12, 2004 10:00 AM  
To: langner@portsh.org  
Cc: Anderson, Rainse; Mesic, Lorelei; stevewagner@coffmanassociates.com  
Subject: Scappoose MP



Scappoose 2003  
2nd ALP Review ...

(See attached file: Scappoose 2003 2nd ALP Review Comments.doc)

Don M. Larson  
Airport Planner  
FAA Seattle ADO  
1601 Lind Ave. SW, #250  
Renton, WA 98055  
(425) 227-2652  
Fax: 227-1650  
don.larson@faa.gov



U.S. Department  
of Transportation

Federal Aviation  
Administration

Seattle Airports District Office  
1601 Lind Avenue, S. W., Ste 250  
Renton, Washington 98055-4056

July 7, 2004

Mr. Paul Langner  
Marine Industrial Manager  
Port of St. Helens  
P. O. Box 598  
St. Helens, Oregon 97051

Dear Mr. Langner:

Airport Layout Plan (ALP) Final Review Comments  
Scappoose Industrial Airpark  
AIP Project No. 3-41-0056-12

The coordination for review within the Federal Aviation Administration (FAA) has been completed on the draft Airport Layout Plan set of drawings for the proposed improvements at Scappoose Industrial Airpark. Our review comments on the 2<sup>nd</sup> draft of the ALP set were sent to you on May 12, 2004.

Also, an aeronautical study (no. 2004-ANM-282-NRA) was conducted on the proposed development to determine its effect on the safe and efficient utilization of the navigable airspace by aircraft. There were no objections based on that evaluation, and no additional review comments arising from the coordination with the other FAA divisions.

The Master Plan report will be accepted upon receipt of two copies of the final document. The FAA will approve the ALP and drawings related to Federal Aviation Regulation (FAR) Part 77 once our comments are reflected on the final drawings, with proposed development subject to environmental approval, where applicable. Please send us 3 sets of prints, signed and dated, plus 1 set of mylars (unsigned), and the ALP CADD files on disk, when they are finalized. We will return one 1 approved set to you. We would like to complete this project and close out the grant as soon as possible. Please call me at (425) 227-2652 if I can be of further assistance.

Sincerely,

Don M. Larson  
Airport Planner

cc:  
Charles Riordan, Oregon Dept. of Aviation  
Rainse Anderson, W&H Pacific

Mesic, Lorelei

---

From: Don.Larson@faa.gov  
Sent: Wednesday, July 07, 2004 1:11 PM  
To: langner@portsh.org  
Cc: Mesic, Lorelei; stevewagner@coffmanassociates.com; Anderson, Rainse; williamson@portsh.org; Charles.H.Riordan@state.or.us  
Subject: RE: Scappoose ALP



Scappoose 2004  
ALP Final Comme...

(See attached file: Scappoose 2004 ALP Final Comments.doc)

----- Forwarded by Don Larson/ANM/FAA on 07/07/2004 01:08 PM -----

"Anderson,  
Rainse" To: Don Larson/ANM/FAA@FAA,  
<langner@portsh.org>  
<ReAnderson@whpac ific.com> cc: "Mesic, Lorelei"  
<LMesic@whpacific.com>, <stevewagner@coffmanassociates.com>, "Anderson, Rainse"  
<ReAnderson@whpacific.com>  
Subject: RE: Scappoose MP  
07/02/2004 11:25  
AM

Don,

Thanks for your comments on the Scappoose Master plan. I wanted to check on the status of the remaining coordination reviews/comments. As your aware our review submittal was made in early May and our client would like to have the documents completed as soon as possible. Please let me know what the status is so we can schedule our final corrections and printing.

Best regards,

Rainse E. Anderson, P.E.  
Aviation Services Director

-----Original Message-----

From: Don.Larson@faa.gov [mailto:Don.Larson@faa.gov]  
Sent: Wednesday, May 12, 2004 10:00 AM  
To: langner@portsh.org  
Cc: Anderson, Rainse; Mesic, Lorelei; stevewagner@coffmanassociates.com  
Subject: Scappoose MP

(See attached file: Scappoose 2003 2nd ALP Review Comments.doc)

Don M. Larson  
Airport Planner  
FAA Seattle ADO  
1601 Lind Ave. SW, #250  
Renton, WA 98055  
(425) 227-2652  
Fax: 227-1650  
don.larson@faa.gov

----- Forwarded by Don Larson/ANM/FAA on 07/02/2004 12:55 PM -----

Don Larson

To: Kathy CTR

Doudna/ANM/CNTR/FAA@FAA, Terry L Parnell/ANM/FAA@FAA, Carolyn  
06/21/2004 08:22 Rice/ANM/FAA@FAA, Michael L

Kelly/ANM/FAA@FAA

AM

cc: Wade Bryant/ANM/FAA@FAA, Bill

Watson/ANM/FAA@FAA, Bev Newkirk/ANM/FAA@FAA

Subject: 2004-ANM-282-NRA, Scappoose, OR,

ALP

We are still waiting on ANM-230 and SEA-FPO comments only for  
2004-ANM-282-NRA, updated ALP for Scappoose Industrial Airport (OR),  
coordinated on 5/12/04. Comments are needed ASAP in order that this grant  
project can be closed out. Please advise of your intended completion date.  
Thanks.

Don M. Larson  
Airport Planner  
FAA Seattle ADO  
1601 Lind Ave. SW, #250  
Renton, WA 98055  
(425) 227-2652  
Fax: 227-1650  
don.larson@faa.gov



**(503) 372-3521**

9755 S.W. Barnes Rd.  
Suite 300  
Portland, OR 97225



**KANSAS CITY**  
**(816) 524-3500**

237 N.W. Blue Parkway  
Suite 100  
Lee's Summit, MO 64063

**PHOENIX**  
**(602) 993-6999**

4835 E. Cactus Road  
Suite 235  
Scottsdale, AZ 85254

## CITY OF SCAPPOOSE

33568 EAST COLUMBIA AVENUE  
SCAPPOOSE, OREGON 97056  
(503) 543-7146  
FAX: (503) 543-7182

CPTA 1-05/DCTA 1-05

October 27, 2006

*Adoption of the September 2004 Scappoose Industrial Airpark Airport Master Plan  
(as amended August 9, 2006)*

### CITY OF SCAPPOOSE STAFF REPORT

Request: Approval of four proposed actions pertaining to adoption of the September 2004 *Scappoose Industrial Airpark Airport Master Plan*:

- 1) Adoption of the 2004 Scappoose Industrial Airpark Airport Master Plan (as amended 8/9/06)
- 2) Amendment to the Scappoose Transportation System Plan
- 3) Comprehensive Plan Text Amendment (CPTA 1-05) to amend the Goals and Policies for Transportation and the appendix
- 4) Development Code Text Amendment (DCTA 1-05) to amend Chapters 17.69 (PUA, Public Use Airport) and 17.88 (AO, Public Use Airport Safety and Compatibility Overlay Zone)

Applicant: City of Scappoose

### EXHIBITS

1. September 2004 Scappoose Industrial Airpark Airport Master Plan (by reference only)
2. Amendment to Airport Master Plan adopted by Port of St. Helens on August 9, 2006
3. Airport Planning Rule (OAR 660 Division 13)

### INTRODUCTION

The City of Scappoose took significant strides toward conformance with the Airport Planning Rule (OAR 660 Division 13) with the passage of Ordinance No. 726, which amended the Comprehensive Plan and Scappoose Municipal Code Title 17 (Development Code) in September 2002. This ordinance created the *Public Use Airport (PUA)* zoning designation and strengthened the *Airport Overlay District* by replacing it with the *Public Use Airport Safety and Compatibility Overlay (AO)* to protect the Scappoose Industrial Airpark. These actions were taken as part of the requirements of Work Task II of the City's Periodic Review Work Program (see **Exhibit 1**).<sup>1</sup> The remaining item within the work task was to incorporate the Port of St. Helens's updated Airport Master Plan. The Airport Master Plan for the Scappoose Industrial Airpark was adopted by the Port of St. Helens in September 2004 and amended by the Port on August 9, 2006.

<sup>1</sup> Note that the City is no longer in Periodic Review.





*Adoption of 2004 Airport Master Plan*

In 2002, as part of the same Ordinance No. 726, the City also re-zoned the properties owned by the Port of St. Helens from Light Industrial to Public Use Airport, along with the property currently used by Transwestern Aviation.

**OBSERVATIONS**

The Public Use Airport zone and the Public Use Airport Safety and Compatibility Overlay Zone were designed to protect the continuing operation of the Scappoose Industrial Airpark as a viable facility. These regulations were modeled on the text contained within the Airport Planning Rule and example documents issued by the Oregon Department of Aviation (ODA), which publishes an Airport Land Use Compatibility Guidebook containing a model "Public Use Airport Safety and Compatibility Overlay Zone."

The zoning regulations anticipated that the Port of St. Helens would complete an update to the 1991 Airport Master Plan. The Port finalized the new Airport Master Plan in September 2004 and amended the plan on August 9, 2006 (see **Exhibits 1 and 2**). Staff proposes the following four actions in response to the Port's issuance of the master plan:

- 1) Adopt the 2004 Scappoose Industrial Airpark Airport Master Plan (as amended 8/9/06).
- 2) Amend the Scappoose Transportation System Plan to incorporate the Airport Master Plan.
- 3) Amend the Goals and Policies for Transportation within the Scappoose Comprehensive Plan (Docket # CPTA 1-05) and amend the appendix to incorporate the Airport Master Plan.
- 4) Amend Chapters 17.69 (PUA, Public Use Airport) and 17.88 (AO, Public Use Airport Safety and Compatibility Overlay Zone) of the Scappoose Municipal Code (Docket # DCTA 1-05).

These actions will complete the City's tasks for Airport Planning Rule compliance.

The Port of St. Helens, the Oregon Department of Aviation, the Scappoose Rural Fire Protection District, the Columbia County Planning Department, and the Oregon Department of Land Conservation and Development have been provided the opportunity to review copies of this proposal. Refinements to the staff report were made in response to comments by Port staff. Furthermore, the Federal Aviation Administration reviewed the Airport Master Plan during its development.

**ANALYSIS**

City staff has reviewed the September 2004 Scappoose Industrial Airpark Airport Master Plan (as amended on August 9, 2006). The 2004 Plan inventories the airport's facilities, projects future demand for the airport, discusses facility requirements, and presents airport layout plans. The plan also identifies a need for additional utilities (e.g. storm drainage, sanitary sewer, etc.) to serve the Scappoose Industrial Airpark. Port Commissioners and staff are currently in the process of performing more detailed analysis of infrastructure needs and alternative methods of meeting those demands. Infrastructure options are being discussed with City staff and with owners of adjoining parcels.

### **Zoning and Land Use Regulations**

While the entirety of the Scappoose Industrial Airpark lies within City limits, the properties outside the airport lie either within the City or within unincorporated Columbia County. The Airport Master Plan discusses the City of Scappoose and Columbia County zoning regulations in effect to protect the airport and its surroundings.

Graphical depictions of the airport environs and the critical areas regulated by the City's airport overlay<sup>2</sup> (e.g., the Runway Protection Zone) can be found on several maps and diagrams within the Airport Master Plan:

- Chapter 1, Exhibit 1-G, Part 77
- Chapter 4, Sheet 3, Airport Airspace Plan
- Chapter 4, Sheet 5, Runway Protection Zone and Profiles
- Chapter 4, Sheet 6, Land Use Plan
- Chapter 4, Exhibit 4A, Noise Contours

These figures will enable staff and citizens to determine at a glance whether the overlay is applicable to a particular property within City Limits.

There are a number of minor errors within the Airport Master Plan pertaining to the City's land use regulations affecting the airport. While they do not affect the City's enforcement of its land use regulations, the following inaccuracies should be noted:

- The land slated for the Industrial Business Park discussed on page 3-17 is zoned Public Use Airport, not Light Industrial.
- The Land Use Plan (Chapter 4, Sheet 6) suggested that some of the land adjacent to the airport lay within the City of Scappoose and was zoned Fish and Wildlife.<sup>3</sup> At the time the report was written, the properties immediately west of the runway lay within Columbia County and had Columbia County zoning. In 2005, thirty-six acres were annexed to the City of Scappoose and were re-zoned to Public Use Airport (PUA). In 2006, approximately 120 acres were annexed and re-zoned to PUA.
- Pages 4-6 and 4-7 state that "The portions of the land within the RPZs [Runway Protection Zones] for Runways 15 and 33, but outside of airport property, is designated by the City of Scappoose as a Fish and Wildlife Zone... This zoning is somewhat in conflict with the recommended uses in the RPZ. The primary conflicts are the wetlands and the bird attraction capability..." In fact, the portions of the RPZs within the City are zoned Public Use Airport, and are furthermore subject to the airport overlay, which has stipulations to minimize bird strike hazards. As observed elsewhere within the same report, "By enacting this overlay zone, the City has appropriately addressed the land use that is within their jurisdiction around the airport" (page 4-8).

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<sup>2</sup> These applicable terms and areas are defined and regulated by the Scappoose Municipal Code, Chapter 17.88, Public Use Airport Safety and Compatibility Overlay Zone. Some discussion of these areas is included in Chapters 1 and 4 of the Airport Master Plan.

<sup>3</sup> The Fish and Wildlife zone has been replaced in the City's zoning regulations with the Sensitive Lands--Fish and Riparian Corridor Overlay.

### **Airport Expansion Plans**

The Airport Master Plan is used by the Port to guide airport expansion plans. Specific development proposals (including the Landside Development Alternative, Chapter 3, Exhibit 3B, and Scappoose Industrial Business Park, Chapter 3, Exhibit 3C) require approval by the Planning Commission as part of Site Development Review prior to implementation.

Several diagrams illustrate the airport's existing property lines and note areas for potential future acquisition by the Port (see Chapter 3, Exhibit 3B and Chapter 4, Sheets 2 and 6 and Exhibit A). The airport expansion plan is discussed in detail in Chapter 4 beginning on page 4-2, where it is noted that "The future airport development is shown on the airport layout plan as required by the FAA. The plan can be modified to accommodate development as dictated by demand." The report notes that "Several parcels on the east side could be acquired should they become available for purchase." These parcels on the east side are denoted with special hatching on Exhibit A in Chapter 4. The Port has recently been successful in acquiring one 5-acre parcel on the east side of the airport.

Since the Port's adoption of the Airport Master Plan, the Port has updated its criteria for through-the-fence agreements to permit off-airport access to the runway and has had discussions with private developers regarding airport-related development on lands not owned by the Port.

### **RECOMMENDATION**

The reasons and rationale described within this report, combined with the requirements of the Airport Planning Rule, support the approval and adoption of the proposed Comprehensive Plan Text Amendment, Development Code Text Amendment, Transportation System Plan amendment, and the 2004 Airport Master Plan (as amended 8/9/06).

Based on the information within the proposed amendments; applicable statutes, rules, comprehensive plan provisions and implementing ordinances; and the information within the September 2004 Scappoose Industrial Airpark Airport Master Plan, staff and the Planning Commission recommend adoption of the four proposals by the City Council.

### **FINDINGS**

1. The proposal to adopt the 2004 Scappoose Industrial Airpark Airport Master Plan, as amended in August 2006, builds on the adoption of Ordinance 726, which in 2002 enacted Comprehensive Plan and Development Code Amendments that provided for the zoning and protection of the Airpark. Ordinance 726 provided a new zone and overlay that are compliant with the state Aviation System Plan, OAR 660, Division 13 (Airport Planning) and ORS 836.000 through 836.630. The language contained within the Public Use Airport Safety and Compatibility Overlay was in alignment with Columbia County requirements relating to bird strike hazards near the airport, and met the requirements of state law.
2. As described within the Airport Master Plan, the Plan assesses existing facilities, projects demand and the resulting facility needs, and outlines an airport Land Use Plan. The Master

*Adoption of 2004 Airport Master Plan*

Plan was written by the Port of St. Helens to be compliant with federal and state regulations regarding airport planning. The Master Plan was adopted by the Port in September 2004 and amended in August 2006.

3. Adopting the September 2004 Scappoose Industrial Airpark Airport Master Plan will aid in the application of the Scappoose Development Code regulations regarding allowable land uses and practices on and near the Scappoose Industrial Airpark. The proposed amendment of the 1997 Transportation System Plan, the Comprehensive Plan policies, and the Development Code represent changes that will streamline the application of the City's regulations that accommodate and protect the Scappoose Industrial Airpark. Together, the proposed legislative land use decision incorporates applicable statutes; statewide planning goals and guidelines; comprehensive plan goals and policies; and provisions of the implementing ordinances. Adopting the 2004 Airport Master Plan (as amended August 9, 2006) will clearly demonstrate that the City has reviewed and accepted the Port of St. Helens's report and will complete compliance with the Airport Planning Rule.
  
4. There are a number of minor errors within the Airport Master Plan pertaining to the City's land use regulations affecting the airport, as detailed in the staff report. These inaccuracies do not hinder the City's application of its land use regulations designed to protect the airport. These errors include:
  - The land slated for the Industrial Business Park discussed on page 3-17 is zoned Public Use Airport, not Light Industrial.
  - The Land Use Plan (Chapter 4, Sheet 6) suggested that some of the land adjacent to the airport lay within the City of Scappoose and was zoned Fish and Wildlife.<sup>4</sup> At the time the report was written, the properties immediately west of the runway lay within Columbia County and had Columbia County zoning. In 2005, thirty-six acres were annexed to the City of Scappoose and were re-zoned to Public Use Airport (PUA). In 2006, approximately 120 acres were annexed and re-zoned to PUA.
  - Pages 4-6 and 4-7 state that "The portions of the land within the RPZs [Runway Protection Zones] for Runways 15 and 33, but outside of airport property, is designated by the City of Scappoose as a Fish and Wildlife Zone... This zoning is somewhat in conflict with the recommended uses in the RPZ. The primary conflicts are the wetlands and the bird attraction capability...." In fact, the portions of the RPZs within the City are zoned Public Use Airport, and are furthermore subject to the airport overlay, which has stipulations to minimize bird strike hazards. As observed elsewhere within the same report, "By enacting this overlay zone, the City has appropriately addressed the land use that is within their jurisdiction around the airport" (page 4-8).

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<sup>4</sup> The Fish and Wildlife zone has been replaced in the City's zoning regulations with the Sensitive Lands--Fish and Riparian Corridor Overlay.

5. The following Statewide Planning Goals have been considered by the City of Scappoose in the formation of the language contained within this request:

***Citizen Involvement (Goal 1)***

*Objective: To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.*

**Finding:**

This application complies with the citizen involvement processes included in the City's acknowledged Comprehensive Plan and Development Code, which is consistent with Statewide Planning Goal 1. The Planning Commission and City Council will hold public hearings on the proposal prior to adopting any amendments to the Comprehensive Plan, Scappoose Municipal Code, or Transportation System Plan. Notice of the proposal and hearings was published in the local newspaper on October 11, October 18, October 25, November 1, and November 8, 2006. The proposal was mailed to the Department of Land Conservation and Development on October 24, 2005 and September 6, 2006. The Planning Commission held a hearing on October 26, 2006. Previous public hearings were held in advance of the 2002 adoption of Ordinance 726, which created the Public Use Airport zone and the Public Use Airport Safety and Compatibility Overlay Zone and re-zoned the Scappoose Industrial Airpark from Light Industrial to Public Use Airport.

The Port of St. Helens established an advisory committee to review the Airport Master Plan as it was developed. The advisory committee members included stakeholders with an interest in protecting the Scappoose Industrial Airpark.

These actions have provided a venue for citizen participation in the development and adoption of the 2004 Airport Master Plan.

***Land Use Planning (Goal 2)***

*Objective: To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions.*

**Finding:**

The proposal is to adopt the 2004 Airport Master Plan for the Scappoose Industrial Airpark, and to amend the Comprehensive Plan, Municipal Code, and Transportation System Plan consistent with the City's regulations regarding legislative land use decisions. Legislative decisions first require a Planning Commission recommendation to the City Council, which then makes a decision based on stated findings. The Planning Commission and City Council hearings are open to the public. The Planning Commission held a hearing October 26, 2006. City Council hearings will be held on November 6 and 20, 2006. This action complies with Goal 2.

***Economic Development (Goal 9)***

*Objective: To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.*

**Finding:**

Adopting the 2004 Airport Master Plan will maintain a large employment site within the City of Scappoose. The diagrams in the Airport Master Plan will assist City staff in enforcing the land use regulations designed to protect the Scappoose Industrial Airpark. The Scappoose Industrial Airpark is a desirable airfield and manufacturing location, as evidenced by private sector interest in accessing the runway from on- and off-airport locations. Columbia County has approved an Oregon Aero manufacturing facility and the City of Scappoose has approved an airport-related industrial park adjacent to the Port of St. Helens property. Preserving and expanding the use of the airport will enhance economic opportunity for the City and the region.

The Airport Master Plan lays out the airport's expansion plans and discusses some of the infrastructure improvements that will be necessary to accommodate the services planned for the airport. Further refinement of the actions to install necessary infrastructure are currently under development by the Port. These actions are consistent with Goal 9.

***Public Facilities and Services (Goal 11)***

*Objective: To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.*

**Finding:**

The 2004 Airport Master Plan observes that some infrastructure upgrades will be necessary for the airport to develop as envisioned. Public water already serves the airport, but public sewer and storm drainage facilities are not available at this time. Prior to development of the site, the Port of St. Helens will need to demonstrate that public facilities will be installed consistent with the City's Public Works Design Standards and the master plans for water, wastewater, storm drainage, and transportation. The Port is currently working with the City, a private developer, and engineering consultants to evaluate infrastructure needs and to plan for their construction. A private developer is currently installing public sewer lines and public storm drainage immediately adjacent to Port property.

***Transportation (Goal 12)***

*Objective: To provide and encourage a safe, convenient and economic transportation system.*

**Finding:**

The Scappoose Transportation System Plan outlines the transportation needs for the area near the Scappoose Industrial Airpark. The 2004 Airport Master Plan is the mechanism by which the Port of St. Helens lays out their plans to augment the airport's operations and facilities. Adoption of the Master Plan continues to provide the City with a viable air transportation option, complying with the Goal.

**Statewide Planning Goals 3-8, 10, and 13-19 are not applicable to this application.**

6. The following Statutes, Rules, Comprehensive Plan Provisions and Implementing Ordinances have been considered by the City of Scappoose in the formation of the language contained within this request:

***OAR 660 Division 13 – Airport Planning:***

(Note: see **Exhibit 3** for the full text of the Airport Planning Rule)

*660-013-0030*

*Preparation and Coordination of Aviation Plans*

*[...]*

*(2) A city or county with planning authority for one or more airports, or areas within safety zones or compatibility zones described in this division, shall adopt comprehensive plan and land use regulations for airports consistent with the requirements of this division and ORS 836.600 through 836.630. Local comprehensive plan and land use regulation requirements shall be coordinated with acknowledged transportation system plans for the city, county, and Metropolitan Planning Organization (MPO) required by OAR 660, Division 12. Local comprehensive plan and land use regulation requirements shall be consistent with adopted elements of the state ASP and shall be coordinated with affected state and federal agencies, local governments, airport sponsors, and special districts. If a state ASP has not yet been adopted, the city or county shall coordinate the preparation of the local comprehensive plan and land use regulation requirements with ODA. Local comprehensive plan and land use regulation requirements shall encourage and support the continued operation and vitality of airports consistent with the requirements of ORS 836.600 through 836.630.*

**Finding:**

In 2002 the City of Scappoose created the Public Use Airport zone, which has a stated purpose “to encourage and support the continued operation and vitality of the Scappoose Industrial Airpark by allowing certain airport-related commercial, manufacturing and recreational uses in accordance with state law.” In 2002 the City also created the Public Use Airport Safety and Compatibility Overlay Zone, which has a stated purpose “to encourage and support the continued operation and vitality of the Scappoose Industrial Airpark by establishing compatibility and safety standards to promote air navigational safety at the Airpark and to reduce potential safety hazards for persons living, working or recreating near the Airpark.” Adoption of these regulations was coordinated with Columbia County and the Port of St. Helens.

Notice of this proposal was mailed to the Oregon Department of Land Conservation and Development on October 24, 2005 and September 6, 2006. The Port of St. Helens, the Oregon Department of Aviation, the Scappoose Rural Fire Protection District, the Columbia County Planning Department, were mailed copies of this proposal to adopt the 2004 Airport Master Plan on November 3, 2005 and October 18, 2006. Port staff’s suggestions for refinements have been incorporated into the staff report.

*Adoption of 2004 Airport Master Plan*

The adopted findings for Ordinance 726, which created the Public Use Airport zone and the Public Use Airport Safety and Compatibility Overlay Zone, demonstrate compliance with the Airport Planning Rule. The Port of St. Helens wrote the 2004 Airport Master Plan to be consistent with the applicable provisions of the Airport Planning Rule. The Federal Aviation Administration reviewed the Airport Master Plan during its development to ensure compliance with Federal standards. The Scappoose Transportation System Plan will be amended by this proposal to include the updated Airport Master Plan. The requirements of OAR 660-013-0030 (2) are met.

660-013-0040

*Aviation Facility Planning Requirements*

*A local government shall adopt comprehensive plan and land use regulation requirements for each state or local aviation facility subject to the requirements of ORS 836.610(1). Planning requirements for airports identified in ORS 836.610(1) shall include:*

*(1) A map, adopted by the local government, showing the location of the airport boundary. The airport boundary shall include the following areas, but does not necessarily include all land within the airport ownership:*

*(a) Existing and planned runways, taxiways, aircraft storage (excluding aircraft storage accessory to residential airpark type development), maintenance, sales, and repair facilities;*

*(b) Areas needed for existing and planned airport operations; and*

*(c) Areas at non-towered airports needed for existing and planned airport uses that:*

*(A) Require a location on or adjacent to the airport property;*

*(B) Are compatible with existing and planned land uses surrounding the airport; and*

*(C) Are otherwise consistent with provisions of the acknowledged comprehensive plan, land use regulations, and any applicable statewide planning goals.*

*(d) "Compatible," as used in this rule, is not intended as an absolute term meaning no interference or adverse impacts of any type with surrounding land uses.*

*(2) A map or description of the location of existing and planned runways, taxiways, aprons, tiedown areas, and navigational aids;*

*(3) A map or description of the general location of existing and planned buildings and facilities;*



- (4) *A projection of aeronautical facility and service needs;*
- (5) *Provisions for airport uses not currently located at the airport or expansion of existing airport uses:*
  - (a) *Based on the projected needs for such uses over the planning period;*
  - (b) *Based on economic and use forecasts supported by market data;*
  - (c) *When such uses can be supported by adequate types and levels of public facilities and services and transportation facilities or systems authorized by applicable statewide planning goals;*
  - (d) *When such uses can be sited in a manner that does not create a hazard for aircraft operations; and*
  - (e) *When the uses can be sited in a manner that is:*
    - (A) *Compatible with existing and planned land uses surrounding the airport; and*
    - (B) *Consistent with applicable provisions of the acknowledged comprehensive plan, land use regulations, and any applicable statewide planning goals.*
- (6) *When compatibility issues arise, the decision maker shall take reasonable steps to eliminate or minimize the incompatibility through location, design, or conditions. A decision on compatibility pursuant to this rule shall further the policy in ORS 836.600.*
- (7) *A description of the types and levels of public facilities and services necessary to support development located at or planned for the airport including transportation facilities and services. Provision of public facilities and services and transportation facilities or systems shall be consistent with applicable state and local planning requirements.*
- (8) *Maps delineating the location of safety zones, compatibility zones, and existing noise impact boundaries that are identified pursuant to OAR 340, Division 35.*
- (9) *Local government shall request the airport sponsor to provide the economic and use forecast information required by this rule. The economic and use forecast information submitted by the sponsor shall be subject to local government review, modification and approval as part of the planning process outlined in this rule. Where the sponsor declines to provide such information, the local government may limit the airport boundary to areas currently devoted to airport uses described in OAR 660-013-0100.*

*Adoption of 2004 Airport Master Plan***Finding:**

The 2004 Airport Master Plan prepared by the Port of St. Helens includes the maps and diagrams required by the Airport Planning Rule and an analysis of existing facilities and projection of future needs, which were used to develop the expansion plans for the airport. Applicable diagrams within the Scappoose Industrial Airpark Airport Master Plan include:

- Chapter 1, Exhibit 1-G, Part 77
- Chapter 3, Exhibit 3B, Landside Development Alternative
- Chapter 3, Exhibit 3C, Scappoose Industrial Business Park (Plan G)
- Chapter 4, Sheet 2, Airport Layout Plan
- Chapter 4, Sheet 3, Airport Airspace Plan
- Chapter 4, Sheet 4, Approach Protection Zone and Profiles
- Chapter 4, Sheet 5, Runway Protection Zone and Profiles
- Chapter 4, Sheet 6, Land Use Plan
- Chapter 4, Exhibit A (no title)
- Chapter 4, Exhibit 4A, Noise Contours

The Land Use Plan has a number of minor errors regarding zoning, as previously discussed in Finding #4. The City will continue to utilize its own zoning maps to determine the base zone for properties in the vicinity of the airport. The diagrams within the Airport Master Plan will be used to determine whether the airport overlay zone is applicable to particular properties within City Limits.

The City of Scappoose enforces land use regulations to ensure that development in the vicinity of the Scappoose Industrial Airpark is compatible with aviation operations, as discussed above under the heading "OAR 660-013-0030, Preparation and Coordination of Aviation Plans."

The Airport Master Plan discusses the public facilities that currently serve the airport and notes that some existing facilities would need upgrades to serve the airport as it develops and expands. The Port is currently working with the City to ensure that future infrastructure extensions are adequate to serve the airport's needs. As part of future land use reviews for the site, the Port would need to demonstrate that its planned infrastructure upgrades would be sufficient and would comply with the City's Public Works Design Standards and the master plans for water, wastewater, storm drainage, and transportation.

The City has not revised or modified the economic and use forecast information supplied by the Port of St. Helens. The requirements of OAR 660-013-0040 are met.

660-013-0050

*Implementation of Local Airport Planning*

*A local government with planning responsibility for one or more airports or areas within safety zones or compatibility zones described in this division or subject to requirements identified in ORS 836.608 shall adopt land use regulations to carry out the requirements of*

*this division, or applicable requirements of ORS 836.608, consistent with the applicable elements of the adopted state ASP and applicable statewide planning requirements.*

660-013-0070

*Local Government Safety Zones for Imaginary Surfaces*

660-013-0080

*Local Government Land Use Compatibility Requirements for Public Use Airports*

660-013-0100

*Airport Uses at Non-Towered Airports*

660-013-0110

*Other Uses Within the Airport Boundary*

**Finding:**

The Scappoose Industrial Airpark and portions of its imaginary surfaces fall within the jurisdiction of the City of Scappoose. The City has adopted the Public Use Airport Zone and the Public Use Airport Safety and Compatibility Overlay Zone to protect the airport consistent with the Airport Planning Rule. The Overlay Zone aligns with model ordinances authored by the Oregon Department of Aviation. The requirements of OAR 660-013-0050, 660-013-0070, 660-013-0080, 660-013-0100, and 660-013-0110 are met.

***OAR 660 Division 12 – Transportation Planning:***

660-012-0020

*Elements of Transportation System Plans*

*(2) The TSP shall include the following elements:*

*[...]*

*(e) An air, rail, water and pipeline transportation plan which identifies where public use airports, mainline and branchline railroads and railroad facilities, port facilities, and major regional pipelines and terminals are located or planned within the planning area. For airports, the planning area shall include all areas within airport imaginary surfaces and other areas covered by state or federal regulations;*

660-012-0045

*Implementation of the Transportation System Plan*

*[...]*

*(2) Local governments shall adopt land use or subdivision ordinance regulations, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions. Such regulations shall include:*

*[...]*

*(c) Measures to protect public use airports by controlling land uses within airport noise corridors and imaginary surfaces, and by limiting physical hazards to air navigation;*

[...]

(f) Regulations to provide notice to public agencies providing transportation facilities and services, MPOs, and ODOT of:

[...]

(D) Other applications within airport noise corridors and imaginary surfaces which affect airport operations.

**Finding:**

The City's 1997 Transportation System Plan (as amended) analyzes the transportation needs of the areas on and around the Scappoose Industrial Airpark, including those areas within the airport imaginary surfaces. The Scappoose Transportation System Plan will be amended by this proposal to include the updated Airport Master Plan. The City's Development Code implements land use regulations to protect the Scappoose Industrial Airpark and to provide notice to the Port of St. Helens regarding land use applications that would impact the airport. The requirements of OAR 660-012-0020 (2)(e) and 660-012-0045(2) are met.

**Goals and Policies from the Scappoose Comprehensive Plan:**

*GOAL FOR ECONOMICS*

*It is the goal of the City of Scappoose to:*

*1) Maintain conditions favorable for a growing, healthy, stable, and diversified business and industrial climate.*

*POLICIES FOR ECONOMICS*

*It is the policy of the City of Scappoose to:*

*1) Make sufficient land available for the anticipated expansion of commercial and industrial activities.*

*4) Encourage the expansion of employment opportunities within the urban area, so residents can work within their community as well as commute to jobs outside the City.*

*5) Promote pollution free industrial development necessary to provide a balanced tax base for the operation of local government services.*

*6) Cooperate with other agencies, interest groups and businesses in efforts to develop program strategies for improving the local economy.*

**Finding:**

Adoption of the 2004 Airport Master Plan will continue to maintain the viability of the Scappoose Industrial Airpark as an employment center within the City of Scappoose. Industrial development will enhance the City's economic base, providing additional employment opportunities within City Limits. The City's existing land use regulations limit the permitted uses in the vicinity of the airport to make sure that development near the airport

*Adoption of 2004 Airport Master Plan*

is compatible with aviation. Airport related operations would likely be low-pollution activities that will bolster the City's tax base and will provide employment opportunities for City residents. The City proposes to adopt the Airport Master Plan developed by the Port of St. Helens as an outline for airport growth. The applicable GOAL FOR ECONOMICS and the POLICIES FOR ECONOMICS are satisfied.

*POLICIES FOR THE INDUSTRIAL LAND USE DESIGNATION*

*It is the policy of the City of Scappoose to:*

- 3) *Locate industrial areas so they have a convenient relationship to the community's transportation system, without generating heavy traffic through residential districts; additionally, the clustering of industrial activities will allow carpooling by employee.*
- 6) *Protect the stability and functional aspects of industrial areas by protecting them from incompatible uses.*

**Finding:**

Continued expansion of the Scappoose Industrial Airpark, which will be advanced by the adoption of the Airport Master Plan, will cluster future industrial uses near existing industrial and noise-generating uses (i.e., the airport) rather than being located adjacent to residential areas. Adopting the Airport Master Plan will simplify application and enforcement of the City's existing land use regulations that protect the airport from incompatible uses. The applicable POLICIES FOR THE INDUSTRIAL LAND USE DESIGNATION are satisfied.

*GOAL FOR TRANSPORTATION*

*It is the goal of the City of Scappoose:*

- 1) *To develop and maintain diverse methods for moving people and goods which are:*
  - A) *Responsive to the needs and preferences of individuals, business and industry;*
  - B) *Suitably integrated into the fabric of the urban community; and*
  - C) *Safe, rapid, economical and convenient to use.*

[...]

- 4) *To strengthen the economy by facilitating diverse means for transporting industrial goods.*

*POLICIES FOR TRANSPORTATION*

*It is the policy of the City of Scappoose to:*

[...]

- 11) *Work with the Port of St. Helens on their plans for the Scappoose Airport, as well as for industrial development and transportation.*

*Adoption of 2004 Airport Master Plan***Finding:**

Adopting the 2004 Airport Master Plan advances the City's goal of diversifying economical transportation options and promotes the Port of St. Helens's plans for maintaining the Scappoose Industrial Airpark. City staff sat on the advisory committee for the drafting of the Airport Master Plan. The Port has been provided the opportunity to comment on the City's proposal to adopt the Plan. The applicable GOAL FOR TRANSPORTATION and the POLICIES FOR TRANSPORTATION are satisfied.

***Ordinance language from Title 17 of the Scappoose Municipal Code (Land Development Code):****Chapter 17.160 PROCEDURES FOR DECISION MAKING—LEGISLATIVE*

*17.160.120 The standards for the decision. A. The recommendation by the planning commission and the decision by the council shall be based on consideration of the following factors:*

- 1. Any applicable statewide planning goals and guidelines adopted under Oregon Revised Statutes Chapter 197;*
- 2. Any federal or state statutes or rules found applicable;*
- 3. The applicable comprehensive plan policies and map; and*
- 4. The applicable provisions of the implementing ordinances.*

*B. Consideration may also be given to:*

*Proof of a substantial change in circumstances, a mistake, or inconsistency in the comprehensive plan or implementing ordinance which is the subject of the application.*

**Finding:**

The City Council's decisions are based on applicable statewide planning goals and guidelines, federal and state statutes and rules, Comprehensive Plan policies, and provisions of the Scappoose Municipal Code, as detailed in the findings. The updated Airport Master Plan is being adopted now because it was not completed until 2004 and amended in 2006. Section 17.160.120 is satisfied.

Amendment to September 2004 Scappoose  
Industrial Airpark Airport Master Plan  
Adopted by Port of St. Helens 8/9/06

Future Airpark Development

1. Scappoose Airpark Industrial Business Park

(Keep existing language)

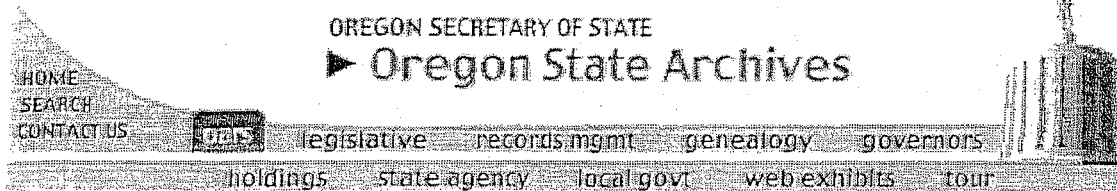
2. Airport Residential Development

Residential airparks at select general aviation airports have proven feasible. It is already happening at 30 public use airports across the country with multiple airport residential developments currently in the planning stages. These airports have residential airparks adjacent to the airport land and have developed through-the-fence agreements to facilitate runway access. use.

There are a number of ways to develop a residential airpark at ~~a public airport, such as~~ Scappoose Industrial Airpark. Since every airport is different, exploring all ~~of the~~ options is essential. The Port of St. Helens Board of Commissioners is supportive of a residential component adjacent to the Airpark and is willing to work with the private sector to provide residential development with airport access, if reasonable and customary terms and conditions are adopted that will provide appropriate protection for the airport and will enhance its viability.

One way, which has been mentioned, is permitting off-airport property to be developed, and then executing a "through-the-fence" access agreement. These agreements have historically been a non--issue for the FAA, at least with regard to residential airparks. They are generally noncommittal on the issue of "through-the-fence," neither endorsing nor specifically prohibiting its existence at federally funded airports.

Exhibit 3



The Oregon Administrative Rules contain OARs filed through September 15, 2006

## LAND CONSERVATION AND DEVELOPMENT DEPARTMENT

### DIVISION 13

#### AIRPORT PLANNING

660-013-0010

##### Purpose and Policy

(1) This division implements ORS 836.600 through 836.630 and Statewide Planning Goal 12 (Transportation). The policy of the State of Oregon is to encourage and support the continued operation and vitality of Oregon's airports. These rules are intended to promote a convenient and economic system of airports in the state and for land use planning to reduce risks to aircraft operations and nearby land uses.

(2) Ensuring the vitality and continued operation of Oregon's system of airports is linked to the vitality of the local economy where the airports are located. This division recognizes the interdependence between transportation systems and the communities on which they depend.

Stat. Auth.: ORS 183 & ORS 197

Stats. Implemented: ORS 836.600 - ORS 836.635 & 1997 OL, Ch. 859

Hist.: LCDC 6-1996, f. & cert. ef. 12-23-96; LCDD 3-1999, f. & cert. ef. 2-12-99

660-013-0020

##### Definitions

For purposes of this division, the definitions in ORS Chapter 197 apply unless the context requires otherwise. In addition, the following definitions apply:

(1) "Airport" means the strip of land used for taking off and landing aircraft, together with all adjacent land used in connection with the aircraft landing or taking off from the strip of land, including but not limited to land used for existing airport uses.

(2) "Aircraft" means helicopters and airplanes, but not hot air balloons or ultralights.



(3) "Airport Uses" means those uses described in OAR 660-013-0100.

(4) "Non Towered Airport" means an airport without an existing or approved control tower on June 5, 1995.

(5) "Public Assembly Uses" means a structure or outdoor facility where concentrations of people gather for purposes such as deliberation, education, worship, shopping, business, entertainment, amusement, sporting events, or similar activities, excluding airshows. Public Assembly Uses does not include places where people congregate for short periods of time such as parking lots and bus stops or uses approved by the FAA in an adopted airport master plan.

(6) "Sponsor" means the owner, manager, other person, or entity designated to represent the interests of an airport.

Stat. Auth.: ORS 183 & ORS 197

Stats. Implemented: ORS 836.600 - ORS 836.635 & 1997 OL, Ch. 859

Hist.: LCDC 6-1996, f. & cert. ef. 12-23-96; LCDD 3-1999, f. & cert. ef. 2-12-99

660-013-0030

### **Preparation and Coordination of Aviation Plans**

(1) The Oregon Department of Aviation (ODA) shall prepare and adopt a state Aviation System Plan (state ASP) in accordance with ORS Chapters 835 and 836 and the State Agency Coordination Program approved under ORS 197.180. ODA shall coordinate the preparation, adoption, and amendment of land use planning elements of the state ASP with local governments and airport sponsors. The purpose of the state ASP is to provide state policy guidance and a framework for planning and operation of a convenient and economic system of airports, and for land use planning to reduce risks to aircraft operations and nearby land uses. The state ASP shall encourage and support the continued operation and vitality of Oregon's airports.

(2) A city or county with planning authority for one or more airports, or areas within safety zones or compatibility zones described in this division, shall adopt comprehensive plan and land use regulations for airports consistent with the requirements of this division and ORS 836.600 through 836.630. Local comprehensive plan and land use regulation requirements shall be coordinated with acknowledged transportation system plans for the city, county, and Metropolitan Planning Organization (MPO) required by OAR 660, Division 12. Local comprehensive plan and land use regulation requirements shall be consistent with adopted elements of the state ASP and shall be coordinated with affected state and federal agencies, local governments, airport sponsors, and special districts. If a state ASP has not yet been adopted, the city or county shall coordinate the preparation of the local comprehensive plan and land use regulation requirements with ODA. Local comprehensive plan and land use regulation requirements shall encourage and support the continued operation and vitality of airports consistent with the requirements of ORS 836.600 through 836.630.

Stat. Auth.: ORS 183 & 197

Stats. Implemented: ORS 836.600 - 836.630 & 1997 OL, Ch. 859

Hist: LCDC 6-1996, f. & cert. ef. 12-23-96; LCDD 3-1999, f. & cert. ef. 2-12-99; LCDD 3-2004, f. & cert. ef. 5-7-04

660-013-0040

### Aviation Facility Planning Requirements

A local government shall adopt comprehensive plan and land use regulation requirements for each state or local aviation facility subject to the requirements of ORS 836.610(1). Planning requirements for airports identified in ORS 836.610(1) shall include:

(1) A map, adopted by the local government, showing the location of the airport boundary. The airport boundary shall include the following areas, but does not necessarily include all land within the airport ownership:

(a) Existing and planned runways, taxiways, aircraft storage (excluding aircraft storage accessory to residential airpark type development), maintenance, sales, and repair facilities;

(b) Areas needed for existing and planned airport operations; and

(c) Areas at non-towered airports needed for existing and planned airport uses that:

(A) Require a location on or adjacent to the airport property;

(B) Are compatible with existing and planned land uses

surrounding the airport; and

(C) Are otherwise consistent with provisions of the acknowledged comprehensive plan, land use regulations, and any applicable statewide planning goals.

(d) "Compatible," as used in this rule, is not intended as an absolute term meaning no interference or adverse impacts of any type with surrounding land uses.

(2) A map or description of the location of existing and planned runways, taxiways, aprons, tiedown areas, and navigational aids;

(3) A map or description of the general location of existing and planned buildings and facilities;

(4) A projection of aeronautical facility and service needs;

(5) Provisions for airport uses not currently located at the airport or expansion of existing airport uses:

(a) Based on the projected needs for such uses over the planning period;

(b) Based on economic and use forecasts supported by market data;

(c) When such uses can be supported by adequate types and levels of public facilities and services and transportation facilities or systems authorized by applicable statewide planning goals;

(d) When such uses can be sited in a manner that does not create a hazard for aircraft operations; and

(e) When the uses can be sited in a manner that is:

(A) Compatible with existing and planned land uses surrounding the airport; and

(B) Consistent with applicable provisions of the acknowledged comprehensive plan, land use regulations, and any applicable statewide planning goals.

(6) When compatibility issues arise, the decision maker shall take reasonable steps to eliminate or minimize the incompatibility through location, design, or conditions. A decision on compatibility pursuant to this rule shall further the policy in ORS 836.600.

(7) A description of the types and levels of public facilities and services necessary to support development located at or planned for the airport including transportation facilities and services. Provision of public facilities and services and transportation facilities or systems shall be consistent with applicable state and local planning requirements.

(8) Maps delineating the location of safety zones, compatibility zones, and existing noise impact boundaries that are identified pursuant to OAR 340, Division 35.

(9) Local government shall request the airport sponsor to provide the economic and use forecast information required by this rule. The economic and use forecast information submitted by the sponsor shall be subject to local government review, modification and approval as part of the planning process outlined in this rule. Where the sponsor declines to provide such information, the local government may limit the airport boundary to areas currently devoted to airport uses described in OAR 660-013-0100.

Stat. Auth.: ORS 183 & 197

Stats. Implemented: ORS 836.600 - ORS 836.630 & 1997 OL, Ch. 859

Hist.: LCDC 6-1996, f. & cert. ef. 12-23-96; LCDD 3-1999, f. & cert. ef. 2-12-99

#### 660-013-0050

##### **Implementation of Local Airport Planning**

A local government with planning responsibility for one or more airports or areas within safety zones or compatibility zones described in this division or subject to requirements identified in ORS 836.608 shall adopt land use regulations to carry out the requirements of this division, or applicable requirements of ORS 836.608, consistent with the applicable elements of the adopted state ASP and applicable statewide planning requirements.

Stat. Auth.: ORS 183 & ORS 197

Stats. Implemented: ORS 836.600 - ORS 836.630 & 1997 OL, Ch. 859

Hist.: LCDC 6-1996, f. & cert. ef. 12-23-96; LCDD 3-1999, f. & cert. ef. 2-12-99

#### 660-013-0070

##### **Local Government Safety Zones for Imaginary Surfaces**

(1) A local government shall adopt an Airport Safety Overlay Zone to promote aviation safety by prohibiting structures, trees, and other objects of natural growth from penetrating airport imaginary surfaces.

(a) The overlay zone for public use airports shall be based on **Exhibit 1** incorporated herein by reference.

(b) The overlay zone for airports described in ORS 836.608(2) shall be based on **Exhibit 2** incorporated herein by reference.

(c) The overlay zone for heliports shall be based on **Exhibit 3** incorporated herein by reference.

(2) For areas in the safety overlay zone, but outside the approach and transition surface, where the terrain is at higher elevations than the airport runway surface such that existing structures and planned development exceed the height requirements of this rule, a local government may authorize structures up to 35 feet in height. A local government may adopt other height exceptions or approve a height variance when supported by the airport sponsor, the Oregon Department of Aviation, and the FAA.

[ED. NOTE: Exhibits referenced are available from the agency.]

Stat. Auth.: ORS 183

Stats. Implemented: ORS 836.600 - 836.630 & 1997 OL, Ch. 859

Hist: LCDC 6-1996, f. & cert. ef. 12-23-96; LCDD 3-1999, f. & cert. ef. 2-12-99; LCDD 3-2004, f. & cert. ef. 5-7-04

660-013-0080

#### **Local Government Land Use Compatibility Requirements for Public Use Airports**

(1) A local government shall adopt airport compatibility requirements for each public use airport identified in ORS 836.610(1). The requirements shall:

(a) Prohibit new residential development and public assembly uses within the Runway Protection Zone (RPZ) identified in Exhibit 4;

(b) Limit the establishment of uses identified in **Exhibit 5** within a noise impact boundary that has been identified pursuant to OAR 340, Division 35 consistent with the levels identified in **Exhibit 5**;

(c) Prohibit the siting of new industrial uses and the expansion of existing industrial uses where either, as a part of regular operations, would cause emissions of smoke, dust, or steam that would obscure visibility within airport approach corridors;

(d) Limit outdoor lighting for new industrial, commercial, or recreational uses or the expansion of such uses to prevent light from projecting directly onto an existing runway or taxiway or into existing airport approach corridors except where necessary for safe and convenient air travel;

(e) Coordinate the review of all radio, radiotelephone, and television transmission facilities and electrical transmission lines with the Oregon Department of Aviation;

(f) Regulate water impoundments consistent with the requirements of ORS 836.623(2) through (6); and

(g) Prohibit the establishment of new landfills near airports, consistent with Department of Environmental Quality (DEQ) rules.

(2) A local government may adopt more stringent regulations than the minimum requirements in section (1)(a) through (e) and (g) based on the requirements of ORS 836.623(1)

[ED. NOTE: Exhibits referenced are available from the agency]

Stat. Auth.: ORS 183 & 197

Stats. Implemented: ORS 836.600 - 836.630 & 1997 OL, Ch. 859

Hist: LCDC 6-1996, f. & cert. ef. 12-23-96; LCDD 3-1999, f. & cert. ef. 2-12-99; LCDD 3-2004, f. & cert. ef. 5-7-04

660-013-0100

### Airport Uses at Non-Towered Airports

Local government shall adopt land use regulations for areas within the airport boundary of non-towered airports identified in ORS 836.610(1) that authorize the following uses and activities:

- (1) Customary and usual aviation-related activities including but not limited to takeoffs, landings, aircraft hangars, tiedowns, construction and maintenance of airport facilities, fixed-base operator facilities, a residence for an airport caretaker or security officer, and other activities incidental to the normal operation of an airport. Residential, commercial, industrial, manufacturing, and other uses, except as provided in this rule, are not customary and usual aviation-related activities and may only be authorized pursuant to OAR 660-013-0110.
- (2) Emergency Medical Flight Services, including activities, aircraft, accessory structures, and other facilities necessary to support emergency transportation for medical purposes. "Emergency Medical Flight Services" does not include hospitals, medical offices, medical labs, medical equipment sales, and similar uses.
- (3) Law Enforcement and Firefighting Activities, including aircraft and ground based activities, facilities and accessory structures necessary to support federal, state or local law enforcement and land management agencies engaged in law enforcement or firefighting activities. These activities include transport of personnel, aerial observation, and transport of equipment, water, fire retardant and supplies.
- (4) Flight Instruction, including activities, facilities, and accessory structures located at airport sites that provide education and training directly related to aeronautical activities. "Flight Instruction" does not include schools for flight attendants, ticket agents, or similar personnel.
- (5) Aircraft Service, Maintenance and Training, including activities, facilities, and accessory structures provided to teach aircraft service and maintenance skills, maintain, service and repair aircraft and aircraft components, but not including activities, structures, and facilities for the manufacturing of aircraft for sale to the public or the manufacturing of aircraft related products for sale to the public. "Aircraft Service, Maintenance and Training" includes the construction of aircraft and aircraft components for personal use. The assembly of aircraft and aircraft components is allowed as part of servicing, maintaining, or repairing aircraft and aircraft components.
- (6) Aircraft Rental, including activities, facilities, and accessory structures that support the provision of aircraft for rent or lease to the public.
- (7) Aircraft Sales and the sale of aeronautic equipment and supplies, including activities, facilities, and accessory structures for the storage, display, demonstration and sale of aircraft and aeronautic equipment and supplies to the public.

(8) Aeronautic Recreational and Sporting Activities, including activities, facilities and accessory structures at airports that support recreational use of aircraft and sporting activities that require the use of aircraft or other devices used and intended for use in flight. Aeronautic Recreation and Sporting Activities on airport property shall be subject to approval of the airport sponsor. Aeronautic recreation and sporting activities include but are not limited to: fly-ins; glider flights; hot air ballooning; ultralight aircraft flights; displays of aircraft; aeronautic flight skills contests; gyrocopter flights; flights carrying parachutists; and parachute drops onto an airport. As used in this rule, parachuting and parachute drops includes all forms of skydiving. Parachuting businesses may be allowed only where they have secured approval to use a drop zone that is at least 10 contiguous acres. A local government may establish a larger size for the required drop zone where evidence of missed landings and dropped equipment supports the need for the larger area. The configuration of 10 acre minimum drop zone shall roughly approximate a square or circle and may contain structures, trees, or other obstacles if the remainder of the drop zone provides adequate areas for parachutists to safely land.

(9) Crop Dusting Activities, including activities, facilities and structures accessory to crop dusting operations. These include, but are not limited to: aerial application of chemicals, seed, fertilizer, pesticide, defoliant and other activities and chemicals used in a commercial agricultural, forestry or rangeland management setting.

(10) Agricultural and Forestry Activities, including activities, facilities and accessory structures that qualify as a "farm use" as defined in ORS 215.203 or "farming practice" as defined in ORS 30.930.

(11) Air passenger and air freight services and facilities at public use airports at levels consistent with the classification and needs identified in the state ASP.

Stat. Auth.: ORS 183 & ORS 197

Stats. Implemented: ORS 836.600 - ORS 836.630 & 1997 OL, Ch. 859

Hist.: LCDC 6-1996, f. & cert. ef. 12-23-96; LCDD 3-1999, f. & cert. ef. 2-12-99

**660-013-0110**

### **Other Uses Within the Airport Boundary**

Notwithstanding the provisions of OAR 660-013-0100, a local government may authorize commercial, industrial, manufacturing and other uses in addition to those listed in OAR 660-013-0100 within the airport boundary where such uses are consistent with applicable provisions of the acknowledged comprehensive plan, statewide planning goals and LCDC administrative rules and where the uses do not create a safety hazard or otherwise limit approved airport uses.

Stat. Auth.: ORS 183 & ORS 197

Stats. Implemented: ORS 836.600 - ORS 836.630 & 1997 OL, Ch. 859

Hist.: LCDC 6-1996, f. & cert. ef. 12-23-96; LCDD 3-1999, f. & cert. ef. 2-12-99

**660-013-0140**

### **Safe Harbors**

A "safe harbor" is a course of action that satisfies certain requirements of this division. Local governments may follow safe harbor requirements rather than addressing certain requirements in these rules. The following are considered to be "safe harbors":

(1) Portions of existing acknowledged comprehensive plans, land use regulations, Airport Master Plans and Airport Layout Plans adopted or otherwise approved by the local government as mandatory standards or requirements shall be considered adequate to meet requirements of these rules for the subject areas of rule requirements addressed by such plans and elements, unless such provisions are contrary to provisions of ORS 836.600 through 836.630. To the extent these documents do not contain specific provisions related to requirements of this division, the documents can not be considered as a safe harbor. The adequacy of existing provisions shall be evaluated based on the specificity of the documents and relationship to requirements of these rules;

(2) This division does not require elimination of existing or allowed airport related uses authorized by an acknowledged comprehensive plan and land use regulations; and

(3) Notwithstanding the safe harbor provisions of this rule, land use regulations applicable to non-towered airports shall authorize airport uses required by this division.

Stat. Auth.: ORS 183 & ORS 197

Stats. Implemented: ORS 836.600 - ORS 836.630 & 1997 OL, Ch. 859

Hist.: LCDC 6-1996, f. & cert. ef. 12-23-96; LCDD 3-1999, f. & cert. ef. 2-12-99

#### 660-013-0155

##### **Planning Requirements for Small Airports**

(1) Airports described in ORS 836.608(2) shall be subject to the planning and zoning requirements described in ORS 836.608(2) through (6) and (8).

(2) The provisions of OAR 660-013-0100 shall be used in conjunction with ORS 836.608 to determine appropriate types of uses authorized within airport boundaries for airports described in 836.608(2).

(3) The provisions of OAR 660-013-0070(1)(b) shall be used to protect approach corridors at airports described in ORS 836.608(2).

(4) Airport boundaries for airports described in ORS 836.608(2) shall be adopted by local government pursuant to the requirements in ORS 836.608(2).

Stat. Auth.: ORS 183 & ORS 197

Stats. Implemented: ORS 836.600 - ORS 836.630 & 1997 OL, Ch. 859

Hist.: LCDD 3-1999, f. & cert. ef. 2-12-99

#### 660-013-0160

##### **Applicability**

This division applies as follows:

(1) Local government plans and land use regulations shall be updated to conform to this division at periodic review, except for provisions of chapter 859, OR Laws 1997 that became effective on passage. Prior to the adoption of the list of airports required by ORS 836.610(3), a local government shall be required to include a periodic review work task to comply with this division. However, the periodic review work task shall not begin prior to the Oregon Department of Aviation's adoption of the list of

airports required by ORS 836.610(3). For airports affecting more than one local government, applicable requirements of this division shall be included in a coordinated work program developed for all affected local governments concurrent with the timing of periodic review for the jurisdiction with the most land area devoted to airport uses.

(2) Amendments to plan and land use regulations may be accomplished through plan amendment requirements of ORS 197.610 to 197.625 in advance of periodic review where such amendments include coordination with and adoption by all local governments with responsibility for areas of the airport subject to the requirements of this division.

(3) Compliance with the requirements of this division shall be deemed to satisfy the requirements of Statewide Planning Goal 12 (Transportation) and OAR 660, Division 12 related Airport Planning.

(4) Uses authorized by this division shall comply with all applicable requirements of other laws.

(5) Notwithstanding the provisions of OAR 660-013-0140 amendments to acknowledged comprehensive plans and land use regulations, including map amendments and zone changes, require full compliance with the provisions of this division, except where the requirements of the new regulation or designation are the same as the requirements they replace.

Stat. Auth.: ORS 183 & 197

Stats. Implemented: ORS 836.600 - 836.630 & 1997 OL, Ch. 859

Hist: LCDC 6-1996, f. & cert. ef. 12-23-96; LCDD 3-1999, f. & cert. ef. 2-12-99; LCDD 3-2004, f. & cert. ef. 5-7-04

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**ORDINANCE NO. 658**

**AN ORDINANCE ADOPTING THE SCAPPOOSE TRANSPORTATION SYSTEM PLAN, AMENDING THE SCAPPOOSE COMPREHENSIVE PLAN AND AMENDING CHAPTERS 13 AND 17 OF THE SCAPPOOSE MUNICIPAL CODE.**

**WHEREAS**, the City of Scappoose has experienced an average growth rate greater than the State of Oregon for the past three years, and

**WHEREAS**, the population is projected to more than double during the next 20 years, and

**WHEREAS**, the State of Oregon has adopted a Transportation Planning Rule that requires the adoption of a local transportation system plan that comprehensively addresses all modes of transportation; and

**WHEREAS**, the Scappoose Planning Commission has recommended adoption of the Scappoose Transportation System Plan and related amendments to the Comprehensive Plan and Scappoose Municipal Code;

**NOW THEREFORE, THE CITY OF SCAPPOOSE ORDAINS AS FOLLOWS:**

**Section 1.** The Scappoose Transportation System Plan dated October, 1997, a copy of which is attached hereto or on file with the City Recorder, is hereby adopted.

**Section 2.** The Scappoose Comprehensive Plan is hereby amended as follows:

**Transportation Policy 1 shall read:** "Require all streets and highways to be of proper width, alignment, design and construction and to insure that they are in conformance with the Scappoose Municipal Code."

**Transportation Policy 7 shall read:** "Adopt and comprehensively implement the Scappoose Transportation System Plan and improve the local circulation network by requiring recommended road improvements at the time of approval of each development application."

**Transportation Policy 8 shall read:** "Regulate or prevent development within areas which will be needed for future collector streets or for widening rights of way."

**Transportation Policy 15 is hereby repealed.**

**Section 3.** The Scappoose Municipal Code is hereby amended as follows:

**A. Scappoose Municipal Code 13.28.010.A is amended to read:**

"The City of Scappoose adopts the Scappoose Oregon Public Works Design Standards and



Standard Specifications dated January 24, 1994, a copy of which is attached hereto or on file with the City Record, including the Standard Construction drawings for public works infrastructure projects, both public and privately financed, within the jurisdiction of the City.

**Section 6. Street Standards, of the Scappoose Oregon Public Works Design Standards and Standard Specifications dated January 24, 1994 shall read:**

**Local Streets:** 54' right of way including two 5' sidewalks, 36' of paving and two 4' boundary lawns for required street trees.

**Minor Collector Streets:** 60' right of way including two 6' sidewalks, two 14' shared travel lanes for automobiles and bicycles, one 8' parking lane, and two 6' boundary lawns for required street trees

**Major Collector Streets:** 66' right of way for major collector streets with two 6' sidewalks, two 6' bicycle lanes, two 12' travel lanes, and two 6' boundary lawns for required street trees. This right of way allows for turn lanes at intersections or parking on one side.

**A. The following shall be added as Scappoose Municipal Code 17.154.020 (C):**

Subject to approval of the Planner and the Public Works Director, street sections may be modified administratively based on geographical constraints of steep slopes, wetlands, flood plains, and constraints imposed by existing structures. Modifications may include, but are not limited to, reduced paving widths, elimination of on street parking and eliminating sidewalks on one side of the street.

**B. The following shall be added as Scappoose Municipal Code 17.154.030 (D)(3):**

New streets shall be laid out to provide reasonably direct and convenient routes for walking and cycling within neighborhoods and accessing adjacent development.

**C. Scappoose Municipal Code 17.154.040 is amended to read:**

- A. The length, width, and shape of blocks shall be designed with regard to providing adequate building sites for the use contemplated, consideration of needs for safe and convenient pedestrian and vehicular access and circulation and recognition of limitations and opportunities of topography.
- B. Except for arterial streets, no block face shall be more than 600 feet in length between street corner lines and no block perimeter formed by the intersection of pedestrian accessways and local, collector and arterial streets shall be more than 1600 feet in length. The recommended minimum length of blocks along an arterial street is one thousand eight hundred feet. A block shall have sufficient width to provide for two tiers of building sites. Reverse frontage on arterial streets may be required by the Planning Commission.



- C. Exemptions from requirement of 17.154.040 (B) may be allowed, upon approval by the Planner and the Public Works Director, for the following two conditions:
1. Where topography and/or other natural conditions, such as wetlands or stream corridors, preclude a local street connection consistent with the stated block length standards. When such conditions exist, a pedestrian accessway shall be required in lieu of a public street connection if the accessway is necessary to provide safe, direct, and convenient circulation and access to nearby destinations such as schools, parks, stores, etc.
  2. Where access management standards along an arterial street preclude a full local street connection. The recommended minimum block along an arterial is 1,800 feet which conflicts with the street connectivity requirements. Where such conditions exist, and in order to provide for adequate connectivity and respect the needs for access management, the approval authority shall require either a right-in/right-out public street connection or public accessway connection to the arterial in lieu of a full public street connection. Where a right-in/right-out street connection is provided, turning movements shall be defined and limited by raised medians to preclude inappropriate turning movements.

**Section 4.** In support of the above, the City Council hereby adopts the findings, conclusions and recommendations included in Exhibit A (the staff report dated September 17, 1997, the supplemental staff reports dated October 15, 1997, and November 3, 1997) attached hereto and incorporated herein.


**PASSED AND ADOPTED** by the City Council this 1st day of December, 1997, and signed by the Mayor, and City Recorder in authentication of its passage.

**CITY OF SCAPPOOSE, OREGON**

  
Glenn E. Dorschler, Mayor

First Reading: November 3, 1997

Second Reading: December 1, 1997

Attest:   
Donna J. Gedlich,  
City Recorder



# Exhibit A

**CITY OF SCAPPOOSE  
STAFF REPORT  
SEPTEMBER 17, 1997**

**Application:** Adopt the Scappoose Transportation System Plan and related amendments to the Scappoose Comprehensive Plan

**Applicant:** City of Scappoose  
P.O. Box P  
Scappoose, Oregon 97056

**Public**

**Hearings:** Scappoose Planning Commission on September 25, 1997

Scappoose City Council on October 20, 1997

**FINDINGS OF FACT**

**History and Citizen Participation:** In 1994, the City of Scappoose received a \$56,850 grant from the Oregon Department of Transportation (ODOT) to prepare a Transportation System Plan (TSP) as required by the Oregon Transportation Planning Rule. Based on conversations with the previous City Manager and the tasks identified in the City's grant application, the consulting firm (David Evans and Associates) prepared a draft work program, budget and schedule for development of an update to the Scappoose Transportation Plan.

On February 8, 1995, staff met with Michael Ray, ODOT, and Jay Lyman and Duane Hofstetter of David Evans & Associates (DEA). The purpose of the meeting was to discuss the scope of the project, elements of the TSP, and the process by which the TSP would be prepared. Due to limited staffing, Mr. Ben Shaw, Public Works Director, assumed the lead role for the City of Scappoose in directing the process.

As recommended by DEA, staff requested that City Council appoint a citizen committee to look at the broad picture of current and future transportation issues in the Scappoose Urban Growth Boundary. On March 2, 1995, the City Council appointed an 8 member Transportation Advisory Committee (TAC). Members included the following:

- Helen Moore, Colco Transportation
- Bonnie Thomas, School Bus Services
- Ken Bailey, City Council
- Joan Magin, replaced by Connie Fisher, replaced by Victor Ruddell. Scappoose Planning Commission

- Mike Greisen, Scappoose Rural Fire District
- Ted White, Rex Cross and Linda Pollard, interested citizens

The role of this committee was to give input to the consulting firm on general transportation needs of the community. Working as a team, the TAC was directed to identify the overall and future transportation needs. At their initial meeting on May 3, 1997, a project overview was presented to the TAC and they prioritized local transportation issues. The prioritized list is attached as Exhibit A.

A community meeting was held on June 7, 1995. However, no testimony was presented and the TAC conducted a regular meeting regarding goals and objective. From this meeting, DEA developed a list of goals for the study. These goals are included in the draft TSP on pages 11 to 13.

The TAC met on August 3, 1995 to review preliminary products including goals and objectives, the street system inventory, and population and employment forecasts. Discussion included identifying current traffic circulation, capacity and safety deficiencies, short range street system improvements, street system alternatives and classifications and alternate modes of transportation.

At the October 3, 1995 TAC meeting, the items discussed at the August 3, 1995 meeting were discussed and approved by the TAC. New discussions included street design stands, the No Build/Build alternatives, access management strategies and transportation demand management measures.

The funding options portion of the TSP was developed by ECONorthwest and was delivered to the City on July 15, 1996. A draft of the TSP was distributed to the City Council, Planning Commission and Transportation Advisory Committee on October 22, 1996. At their final meeting on January 14, 1997, the TAC discussed funding issues including the impacts of Measure 47. The TAC agreed that the project list was speculative and a disclaimer would be appropriate. Ms. Shaw agreed to draft a letter to insert in the document.

The TAC discussed the comment received by Michael Ray, ODOT, from Bob Cortwright, Department of Land Conservation and Development (DLCDD) which stated that the extension of Havlik Road to the east would require a "goal exception". Manish Babla, DEA, suggested removing the project from the plan to expedite adoption. The TAC, however, determined that it would be more appropriate to amend the UGB as this street completes access to Highway 30 from 9<sup>th</sup> Street and provides a public street connecting 6<sup>th</sup> Street to Highway 30.

Members of the TAC expressed concerns regarding local street widths, lack of internal circulation plans for specific developments, and amendments to the right of way widths and utility standards to include street trees. The TAC recommended that the following issues be addressed:

- Expansion of UBG for 9<sup>th</sup> Street/Havlik Road connection
- Consistency in maps (use Figure 6 and update)
- Letter of introduction from Public Works Director
- Connecting future project map and list of projects more closely in the document



- Amending map title on Figure 14 to Transportation Systems Projects
- Updating Systems Development Charges annually

The TAC approved a motion to submit the draft TSP to the Planning commission with all of the concerns and issues that had been expressed. The motion specifically did not include a recommendation to approve the TSP and was adopted by a 4-0 vote.

**Discussion:** Staff concurs with the TAC's concerns regarding the need for consistency in the maps in the Transportation System Plan and recommends the final document be amended to include consistent maps, that the list of projects and future project map be located adjacent to each other in the document and that the map title on Figure 14 be amended to read "Transportation Systems Projects". The issue of updating Transportation Systems Development Charges on a regular cycle has merit. Staff recommends that funding for an update of the current methodology be included in the 1998/99 budget process.

The introduction to the draft TSP contains a statement regarding Scappoose serving as a "bedroom community" to the Portland Metropolitan area. Census data indicates the majority of the commuting population in the City of Scappoose does not commute to the Portland Metropolitan area. As employment opportunities continue to grow within the community through expanded retail and development of industrial properties on West Lane Road, further reduction of commuting population is anticipated. Therefore, staff recommends that the first paragraph of the draft TSP be removed in its entirety.

**Applicable Criteria and Evaluation of Criteria:** An assessment of the existing transportation facilities in the City of Scappoose is the initial component of the draft Transportation System Plan (TSP). Through the Transportation Planning Rule, the State of Oregon requires local communities to prepare and adopt a TSP that includes findings of compliance with applicable State Goals and local acknowledged Comprehensive Plans and land use regulations.

**1. State Goal 12, Transportation requires a transportation plan to:**

**a. Consider all modes of transportation including mass transit, air, water, pipeline, rail, highway, bicycle and pedestrian**

As proposed, the draft TSP discusses mass transit, air, water, pipeline, rail, highway, bicycle and pedestrian traffic. The document contains an inventory of the local street, bicycle and pedestrian facilities. The draft TSP does not fully discuss the use of air transportation, but refers the user to the Scappoose Airpark Master Plan. Staff recommends that Paragraph 6 of Page 76 of the draft Transportation Plan be amended to read as follows: The Scappoose Industrial Airpark is governed by the 1991 Scappoose Industrial Airpark Master Plan and subsequent updates included as Appendix E attached hereto and incorporated herein.

Conclusion: Based on the above findings and approval of the recommend amendment, the draft TSP satisfies this criteria.

**b. Be based on an inventory of local, regional and state transportation needs**

An inventory of the local transportation needs was conducted by the TAC at their first meeting and is attached to this staff as Exhibit A. Additional transportation needs inventory was compiled from the Oregon Transportation Plan, the Oregon Highway Plan, Statewide Intercity Passenger Service Plan, Statewide Freight Service Plan, Bicycle and Pedestrian Service Plan, the Portland-Astoria Corridor Plan and Columbia County Comprehensive Plan. The draft TSP contains an inventory of the existing street system and capacities, current traffic volumes and average trip lengths. Level of service (LOS) is defined in the draft TSP as defined by the Transportation Research Board, Highway Capacity Manual, Special Report 209 and the current LOS for major intersections are defined. The assessment of travel mode distribution indicates the automobile is the primary mode of transportation. Using the existing Scappoose Comprehensive Plan land use and roadway designations and TMODEL2 micro computer software by Professional Solutions Inc., the future travel demand was forecast and recommended improvements to meet those demands were identified.

Conclusion: Based on the above findings and Exhibit A, the draft TSP satisfies this criteria.

**c. Consider the differences in social consequences that would result from utilizing differing combinations of transportation modes**

The discussion of build and no-build scenarios includes references to the social consequences of those scenarios including decreases in air quality and increased noise levels due to increased congestion and the affects of long delays at major intersections on residents and businesses. Exhibit B, Analysis of Impacts, attached hereto and incorporated herein, discusses existing structures, historic sites, wetlands, floodplains and Steep Slopes

Conclusion: Based on the above findings and the findings in the Analysis of Impacts (Exhibit B) , the draft TSP satisfies this criteria.

**d. Avoid principal reliance upon any one mode of transportation**

A variety of modes of transportation are identified in the plan with recommended improvements to facilities serving pedestrians, bicyclists, automobiles and truck traffic to encourage use of more than one mode of transportation, particularly for trips originating and ending within the community. Amending the draft TSP to incorporate the Scappoose Airpark Master Plan and updates, as previously

recommended. provides additional support for a finding that the draft TSP avoids principal reliance on any one mode of transportation.

Conclusion: Based on the above findings and approval of the recommended amendments, the draft TSP satisfies this criteria.

**e. Minimize adverse social, economic, and environmental impacts and costs**

The Analysis of Impacts attached and incorporated into this staff report as Exhibit B discusses social and environmental impacts for each of the 72 potential projects identified in the draft TSP. The economic impacts are identified in Exhibit C, Scappoose Transportation Plan Projects Cost Analysis, attached and incorporated into this staff report. In addition, the draft TSP categorizes projects according to the need that is addressed including access, economic development, safety, operations and upgrade of existing facilities. The cost for each project is broken down by unit cost per mile and total project cost so that the Transportation Planning Committee, the Planning Commission and the City Council may assess and minimize costs as appropriate. Appendix C of the draft TSP discusses current population, housing and employment and forecasts future transportation needs. The demographics are based on the Scappoose Comprehensive Plan which identifies environmentally sensitive areas including the Scappoose Creek Floodplain and steep slope hazards.

Conclusion: Based on the above findings and the findings in the Analysis of Impacts (Exhibit B), the draft TSP satisfies this criteria.

**f. Conserve energy**

While specific data regarding energy conservation is not indicated in the draft TSP, it is reasonable for the Council to find that improvements to the transportation system that result in reduced idle time for vehicles due to lessening of congestion and increased ability to reach destinations directly through alternate north south routes as well as an increase in pedestrian and bicycle facilities would result in energy conservation. Amending the street standards to include boundary tree lawns would further support the finding as well as providing for enhanced air quality and encouraging the usage of pedestrian facilities.

Conclusion: Based on the above findings and approval of the recommended amendment, draft TSP satisfies this criteria.

**g. Meet the needs of the transportation disadvantaged by improving services**

Staff understands the definition of transportation disadvantaged includes persons who are unable to drive and includes school children. The draft TSP improves services to

these streets by including provisions for adding wheelchair accessible sidewalks to areas not served by sidewalks at this time, requiring sidewalks on all future streets and adding dedicated bike lanes to major collector streets and shared vehicle lanes on minor collector streets.

Conclusion: Based on the above findings, draft TSP satisfies this criteria.

**h. Facilitate the flow of goods and services so as to strengthen the local and regional economy**

As previously discussed, the draft TSP discusses a variety of transportation modes. The development of a comprehensive transportation system that includes use of truck, rail, air and pipeline for the movement of goods provides options to users that support continued industrial and economic development. Supporting continued industrial and economic development strengthens the local economy. Specifics of economic benefits of the Scappoose Industrial Airpark are discussed in Exhibit D, the Leverton report on Economic Benefits of Scappoose Airport, dated October 30, 1996, attached hereto and incorporated herein.

Based on the above findings, the draft TSP satisfies this criteria.

**i. Conform with local and regional comprehensive land use plans.**

The City of Scappoose has adopted the Oregon Department of Transportation's Interim Corridor Strategy as the plan for maintaining regional connectivity of Highway 30 and continues to participate in the ODOT Corridor Steering Committee. ODOT's participation in creating the draft transportation plan included coordination of regional issues although there is no adopted regional comprehensive land use plan. Columbia County Planning responded to the Land Use Referral with two comments: (1) the draft TSP did not include benchmarks for measuring if objectives are met, and (2) the draft TSP did not contain findings with regards to implementation. Staff has discussed the comments with Columbia County Planning and they agree that the County TSP does not contain benchmarks and that it would require additional staffing to monitor reductions of vehicle miles traveled or similar generally accepted transportation benchmarks. Staff also explained that the necessary findings will be incorporated in this staff report and a copy will be available seven days prior to the first public hearing.

In developing the draft TSP, the consulting firm prepared a demographic forecast based on the current land use plans and zoning in the City of Scappoose. The study, dated September 8, 1995, is incorporated into the draft TSP as Appendix C. Staff recommends that a copy of the Comprehensive Plan Map be included with the Zoning Map in Appendix B. A discussion of the applicable Scappoose Comprehensive Plan

Goals and policies follows.

Conclusion: Based on the above findings and the following findings regarding the Scappoose Comprehensive Plan and the recommended addition of the Comprehensive Plan map, the draft TSP satisfies this criteria.

2. Because access is an integral part of all development, it can be argued that all of the goals of the Comprehensive Plan are in some way related to the Transportation System Plan. However, the following findings are specific to the Transportation Goals and Policies of the Scappoose Comprehensive Plan.

- a. **To develop and maintain diverse methods for moving people and goods which are responsive to the needs and preferences of individuals, business and industry; suitably integrated into the fabric of the urban community; and safe, rapid, economical and convenient to use.**

The proposed TSP addresses railroad, pipeline, street, pedestrian, bicycle and airport components of transportation. It does not fully discuss the use of air transportation, but refers the user to the Scappoose Airpark Master Plan. Staff recommends that Paragraph 6 of Page 76 of the draft Transportation Plan be amended to read as follows: The Scappoose Industrial Airpark is governed by the 1991 Scappoose Industrial Airpark Master Plan and subsequent updates included as Appendix E attached hereto and incorporated herein.

Conclusion: Based on the above findings and approval of the recommend amendment, the draft TSP satisfies this criteria

- b. **To remove congestion and prevent future congestion so that accidents and travel time would be reduced.**

Through the use of build and no-build alternatives, the draft TSP identifies future congestion and provides a listing of projects that would reduce congestion at affected intersections. The project list identifies a project to coordinate signal timing to minimize delays on Highway 30.

The City of Scappoose has previously adopted the ODOT Interim Corridor Access Strategies for the purpose of reducing congestion on Highway 30 and is prepared to review revisions to that document when available. In addition, the Scappoose Comprehensive Plan Policies addresses regulating commercial properties adjacent to Highway 30. Scappoose Municipal Code 17.150, Subdivisions, and 17.152, Minor Partitions, specifically require notice to ODOT for developments affecting Highway 30. Scappoose Municipal Code 17.160, Legislative Decision Making, 17.162, Quasi Judicial Decision Making, and 17.164, Limited Land Use Decision Making, all require

notice be given to affected government agencies. This process provides a mechanism for access management of Highway 30, the only major arterial in the community, without increasing local staffing levels.

The Access Management Guidelines included on Page 46 of the draft TSP are clearly not a product of the existing land use patterns for the City of Scappoose and do not reflect previous modifications to the TSP removing references to secondary arterials. Staff recommends these guidelines be modified to reflect Scappoose including Major Collector Streets rather than Secondary Arterials, amending minimum spacing between intersections for local residential streets to the existing 200 foot grid system, removing references to higher density residential as an appropriate land use adjacent to major arterials, and indicating low to medium density for minor collector streets per existing land use patterns.

Conclusion: Based on the above findings and approval of the recommended amendments, the draft TSP satisfies this criteria.

**c. To create relatively traffic free residential areas**

With the exception of Havlik Road, the 9<sup>th</sup> Street/Bird Road connection and the Eggleston Lane, the proposed collector streets are located where corridors were previously designated in the Comprehensive Plan and have been protected through additional setback requirements in the previous subdivision ordinance. Havlik is a new street constructed to collector street standards based on the results of the developer's traffic study. Impacts of the 9<sup>th</sup> Street/Bird Road connection on the previously constructed segment of 9<sup>th</sup> street can be minimized through administrative modifications to the street standards as discussed in Exhibit B. Eggleston Lane is new construction. Consideration of existing and future residential development will be a significant factor in final engineering design for streets to create relatively traffic free residential areas.

Conclusion: Based on the above findings, the draft TSP satisfies this criteria.

**d. To strengthen the economy by facilitating diverse means for transporting industrial goods.**

Diverse means for transporting industrial goods include trucking, pipelines, rail and air transportation. Each of these methods is discussed in the draft TSP, although use of air transportation is limited to a reference to the Scappoose Airpark Master Plan. Staff recommends that Paragraph 6 of Page 76 of the draft Transportation Plan be amended to read as follows: The Scappoose Industrial Airpark is governed by the 1991 Scappoose Industrial Airpark Master Plan and subsequent updates included as Appendix E attached hereto and incorporated herein.

Conclusion: Based on the above findings and approval of the recommend amendment, the draft TSP satisfies this criteria

- e. **To develop and maintain a road network that is an asset to existing commercial areas.**

Adoption of the draft TSP provides direction for developing a roadway network that serves the existing commercial areas more completely. The projects identified for Old Portland Road provide an alternative access to the developments on the south end of town while projects on Columbia Avenue enhance access to the northeast commercial development. Adoption of the recommendations in the Analysis of Impacts begins the process of providing for development of an enhanced pedestrian and vehicular access to the West First Street commercial areas.

Conclusion: Based on the above findings and adoption of the recommendations in the Analysis of Impacts (Exhibit B) , the draft TSP satisfies this criteria.

- f. **To provide a more reliable basis for planning new public and private developments whose location depends on transportation**

Adoption of the draft TSP provides staff and the Planning Commission with a document for identifying future necessary right of ways. It provides the Budget Committee and the City Council with a basis for development of a Capital Improvement Plan.

Conclusion: Based on the above findings, the draft TSP satisfies this criteria.

- g. **To cooperate closely with the County and State on transportation matters.**

The City has demonstrated compliance with this goal by providing copies of the draft TSP to Columbia County, the Department of Land Conservation and Development and the Oregon Department of Transportation for review. Michael Ray, a staff member with the Oregon Department of Transportation, served as an advisory member on the Scappoose Transportation Advisory Committee.

Columbia County Planning responded to the Land Use Referral with two comments: (1) the draft TSP did not include benchmarks for measuring if objectives are met, and (2) the draft TSP did not contain findings with regards to implementation. Staff has discussed the comments with Columbia County Planning and they agree that the County TSP does not contain benchmarks and that it would require additional staffing to monitor reductions of vehicle miles traveled or similar generally accepted transportation benchmarks. Staff also explained that the necessary findings will be incorporated in this staff report and a copy will be available seven days prior to the

first public hearing.

When development is proposed that will require construction of roads outside the current City limits or of Havlik Road across Highway 30 just outside the Scappoose Urban Growth Boundary, the City of Scappoose will work with Columbia County and the State of Oregon to insure that the appropriate process and necessary approvals are obtained. Extending Havlik Drive from the west across Highway 30 provides east/west connectivity. Presently, residences in the southeast area are required to drive approximately ½ mile north to High School Way (a private road), turn west to the Highway 30, then return ½ mile south to access commercial developments directly west of their residences across Highway 30. Construction would allow ease of access for residences in the southeast area to these commercial developments and would support closure of the private, unimproved, gravel crossings of the railroad line south of the candle.

**h. To assure that roads have the capacity for expansion and extension to meet future demands.**

The draft TSP includes an inventory of the existing street system and capacities, current traffic volumes and average trip lengths. Level of service (LOS) is defined in the draft TSP as defined by the Transportation Research Board, Highway Capacity Manual, Special Report 209 and the current LOS for major intersections are defined. The assessment of travel mode distribution indicates the automobile is the primary mode of transportation. Using the existing Scappoose Comprehensive Plan land use and roadway designations and TMODEL2 micro computer software by Professional Solutions Inc., the future travel demand was forecast and recommended improvements to meet those demands were identified.

Conclusion: Based on the above findings, the draft TSP satisfies this criteria.

**i. To insure the paths of future arterial rights of way are preserved.**

The only arterial right of way in the City of Scappoose under the existing standards and the draft TSP is Highway 30. The Oregon Department of Transportation interim Corridor Strategy, previously adopted by the City of Scappoose indicates no future widening of this right of way.

Conclusion: Based on the above findings, the draft TSP satisfies this criteria.

**j. To provide special protected routes for walking and bicycling.**

The draft TSP identifies existing pedestrian and bicycle facilities. The recommended street standards for local, minor collector and major collector streets include sidewalks



on all streets, shared bike lanes for minor collector streets and separate bicycle lanes for major collector streets. Use of pedestrian routes can be further supported through implementation of ordinances requiring street trees in boundary lawns. Staff recommends that street standards be amended to include adequate right of way for street trees

DEA has recommended cul-de-sacs as long as 1000 feet. City staff and the Department of Land Conservation and Development do not support this recommendation. Staff recommends that the transportation system plan be amended to the current standard of a maximum of 400' for cul-de-sacs and that no changes be made to the existing Public Works Design Standards with regards to length and internal radius for cul-de-sacs. To further support accessibility by pedestrians and bicyclists, staff recommends that Scappoose Municipal Code 17.154.030.(D) be amended by adding item (3) as follows: "New streets shall be laid out to provide reasonably direct and convenient routes for walking and cycling within neighborhoods and accessing adjacent development".

Conclusion: Based on the above findings and approval of the amendments as recommended by staff, the draft TSP satisfies this criteria

3. **The Scappoose Comprehensive Plan identifies the following applicable transportation policies:**

a. **Require all newly established streets and highways to be of proper width, alignment, design and construction, and to ensure that they are in conformance with the City's Subdivision Ordinance.**

The draft TSP contains street standards and general corridors to be protected in the development process. These issues are discussed in other sections of this document. The projects included in the draft TSP are not limited to newly established streets and highways, but include improvements to existing streets to upgrade the entire transportation system. In addition, the City's "Subdivision Ordinance" was repealed in October, 1995 and replaced by Scappoose Municipal Code Chapter 17 (the Development Code). The actual construction standards are codified in Scappoose Municipal Code Chapter 13 (Public Works Design Standards). Therefore staff recommends this policy be amended to read as follows:

Require all streets and highways to be of proper width, alignment, design and construction and to insure that they are in conformance with the Scappoose Municipal Code.

Conclusion: Based on the above findings and approval of the recommended Comprehensive Plan policy amendment, the draft TSP satisfies this criteria.

- b. **Review diligently all subdivision plats and road dedications to insure the establishment of a safe and efficient road system.**

When approved by the City Council and adopted into the Scappoose Comprehensive Plan, the TSP will serve as the planning document for establishing a safe and efficient road system. Staff will continue the policy of diligently reviewing all subdivision plats and road dedications and will conduct that review and make recommendations for approvals based on the adopted TSP.

Conclusion: Based on the above findings, the draft TSP satisfies this criteria.

- c. **Cooperate with the County and State on plans to improve transportation facilities, especially Highway 30.**

The City has demonstrated compliance with this policy by providing copies of the draft TSP to Columbia County, the Department of Land Conservation and Development and the Oregon Department of Transportation for review. Michael Ray, a staff member with the Oregon Department of Transportation, served as an advisory member on the Scappoose Transportation Committee.

Conclusion: Based on the above findings, the draft TSP satisfies this criteria.

- d. **Regulate the expansion of commercial enterprises along Highway 30 to limit traffic hazards and congestion. Minimize the interruption on Highway 30 of the traffic flow and promote safety.**

The City has adopted the Oregon Department of Transportation's Interim Corridor Strategy as the plan for maintaining regional connectivity of Highway 30 and continues to participate in the ODOT Corridor Steering Committee. Adoption of the draft TSP continues this process by providing a plan for alternative routes designed to minimize future congestion at intersections on Highway 30.

Conclusion: Based on the above findings, the draft TSP satisfies this criteria.

- e. **Comprehensively implement the 1987 classification system for roads and standards for each classification to improve the local circulation network by developing a road construction plan and addressing road construction carefully at the time of each new development application.**

The draft TSP begins with the 1987 classification system and provides a road construction plan. Staff is recommending that this policy be updated by amending it to read as follows:

“Adopt and comprehensively implement the Scappoose Transportation System Plan and improve the local circulation network by requiring recommended road improvements at the time of approval of each development application.”

Conclusion: Based on the above findings and approval of the recommended Comprehensive Plan policy amendment, the draft TSP satisfies this criteria.

**f. Regulate or prevent development within areas which will be needed for future arterials or for widening rights of way.**

When it is adopted, the TSP will protect corridors 200 feet in width for widening future rights of way or constructing identified streets. No arterials other than Highway 30 have been identified for construction. However, several major collector streets are included in the TSP. To protect the corridors for these projects, staff recommends that this policy be amended to read:

“Regulate or prevent development within areas which will be needed for future collector streets or for widening rights of way.”

Conclusion: Based on the above findings and approval of the recommended Comprehensive Plan policy amendment, the draft TSP satisfies this criteria.

**g. Design a transportation system that keeps in mind energy conservation.**

As previously indicated, specific data regarding energy conservation is not indicated in the draft TSP. However, it is reasonable for the Council to find that improvements to the transportation system that result in reduced idle time for vehicles due to lessening of congestion and increased ability to reach destinations directly through alternate north south routes as well as an increase in pedestrian and bicycle facilities would result in energy conservation. Amending the street standards to include boundary tree lawns would further support the finding as well as providing for enhanced air quality and encouraging the usage of pedestrian facilities.

Conclusion: Based on the above findings and the approval of the street standards as recommended by staff, the draft TSP satisfies this criteria.

**h. Work with the Port of St. Helens on their plans for the Scappoose Airport as well as for industrial development and transportation.**

Areas identified for future industrial development were considered in development of the draft TSP. A recommendation to construct Forest Road and make improvements to the intersection of Highway 30 and Scappoose Vernonia Highway and West Lane Road

are included in the draft TSP. Use of air transportation is not fully discussed, but users are referred to the Scappoose Airpark Master Plan. Staff recommends that Paragraph 6 of Page 76 of the draft Transportation Plan be amended to read as follows: The Scappoose Industrial Airpark is governed by the 1991 Scappoose Industrial Airpark Master Plan and subsequent updates included as Appendix E attached hereto and incorporated herein.

Conclusion: Based on the above findings and approval of the recommended amendment, the draft TSP satisfies this criteria.

i. **Review the street standards of the City of Scappoose to make sure they are adequate but not excessive.**

The City of Scappoose was originally platted on 200 foot grids separated by 60 foot right of ways. This foresight on the part of the original developers allows for future expansions by providing adequate right of ways for wide planting strips adjacent to narrower local streets while allowing construction to collector street standards should traffic patterns support such construction. Many existing City streets appear to be narrower than the following recommended widths, but parking is not provided on the paving. There are no curbs and the grassy strips between the existing sidewalks and travel lanes are used for parking. This does not provide for adequate drainage due to compaction. Water on road shoulders saturates the road base and contributes to failure of the road surface. The County roads located in the City are becoming increasingly inadequate as urban streets because they were constructed to rural standards in minimal right of ways. Many of these "county roads" serve as major and minor collectors for the City of Scappoose and deficiencies are becoming more obvious as development continues.

Additionally, the current right of way standards make no allowances for street trees. The findings for the draft of the comprehensive urban forestry plan are hereby attached and incorporated as Exhibit E. This document, to be presented to the Council for approval this year, will support requiring street trees. To prevent conflicts, staff recommends that right of way for local streets be increased from the current 46' to a minimum of 54', the right of way for minor collector streets be 60' in width and the right of way for major collector streets be 66' in width. Recommended construction standards include:

**Local Streets:** 54' right of way including two 5' sidewalks, two 11' travel lanes, two 7' parking lanes and two 4' boundary lawns for required street trees.

**Minor Collector Streets:** 60' right of way including two 6' sidewalks, two 14' shared travel lanes for automobiles and bicycles, one 8' parking lane, and two 6' boundary lawns for required street trees

**Major Collector Streets:** 66' right of way for major collector streets with two 6' sidewalks, two 6' bicycle lanes, two 12' travel lanes, and two 6' boundary lawns for required street trees. This right of way allows for turn lanes at intersections or parking on one side.

Conclusion: Based on the above findings and approval of the street standards as recommended by staff, the draft TSP satisfies this criteria.

- j. **Designate the following streets as collector streets: Columbia Avenue, JP West Road, EM Watts Road, Old Portland Road, East and West Maple Street, East and West 4<sup>th</sup> Street, Southeast 6<sup>th</sup> Street, Dutch Canyon Road, West Lane, E. J. Smith Road and West 1<sup>st</sup> Street.**

The draft TSP identifies all of these as collector streets and adds Eggleston Lane, Havlik Road, Forrest Road and 9<sup>th</sup> Street. Based on the previously discussed policy to comprehensive implement a transportation plan, this policy appears redundant and staff recommends that it be repealed to avoid future confusion.

Conclusion: Based on the above findings and approval of the recommended Comprehensive Plan policy amendment, the draft TSP satisfies this criteria.

- k. **Develop a system of pedestrian paths and bikeway encouraging their construction.**

The draft TSP identifies bike lanes as a component in street construction and includes an inventory of existing pedestrian and bicycle facilities. Recommended street standards include both sidewalks and bike lanes. A project is included in the draft TSP for construction of a dedicated pedestrian/bicycle facility adjacent to Scappoose Creek. This facility will provide walkers and bicyclists with an alternative to Highway 30 extending from Dutch Canyon Road to Scappoose Vernonia Highway.

Conclusion: Based on the above findings, the draft TSP satisfies this criteria.

#### **RECOMMENDED ACTION:**

1. Based on the findings contained in this staff report including Exhibits A through E, staff recommends the Planning Commission recommend that the Scappoose City Council adopt the following amendments to the Scappoose Comprehensive Plan:

**Amend Transportation Policy 1 to read:** Require all streets and highways to be of proper width, alignment, design and construction and to insure that they are in conformance with the Scappoose Municipal Code.

**Amend Transportation Policy 7 to read:** Adopt and comprehensively implement the Scappoose Transportation System Plan and improve the local circulation network by requiring recommended road improvements at the time of approval of each development application.

**Amend Transportation Policy 8 to read:** Regulate or prevent development within areas which will be needed for future collector streets or for widening rights of way.

**Repeal Transportation Policy 15.**

2. Based on the findings contained in this staff report including Exhibits A through E, staff recommends the Planning Commission recommend that the Scappoose City Council adopt the Scappoose Transportation System Plan with the following amendments:
  - a. Paragraph 6 of Page 76 of the Transportation System Plan shall be amended to read: The Scappoose Industrial Airpark is governed by the 1991 Scappoose Industrial Airpark Master Plan and subsequent updates included as Appendix E attached hereto and incorporated herein.
  - b. The Transportation System Plan street standards discussion and diagrams shall be amended as follows:

**Local Streets:** 54' right of way including two 5' sidewalks, two 11' travel lanes, two 7' parking lanes and two 4' boundary lawns for required street trees.

**Minor Collector Streets:** 60' right of way including two 6' sidewalks, two 14' shared travel lanes for automobiles and bicycles, one 8' parking lane, and two 6' boundary lawns for required street trees

**Major Collector Streets:** 66' right of way for major collector streets with two 6' sidewalks, two 6' bicycle lanes, two 12' travel lanes, and two 6' boundary lawns for required street trees. This right of way allows for turn lanes at intersections or parking on one side.
  - c. All TSP maps shall be amended to be consistent with one another.
  - d. The list of projects and future project map shall be located adjacent to each other in the final document.
  - e. The map title on Figure 14 shall be amended to read "Transportation Systems Projects".

- f. The first paragraph of the draft TSP shall be removed in its entirety.
  - g. The list of major transportation facilities of significance in Scappoose on Page 4 shall be amended to include the Scappoose Industrial Airpark.
  - h. On Page 97 of the draft TSP, remove the phrase "or the project will not be built".
  - i. The final document shall include a copy of the Comprehensive Plan Map and Zoning Map as Appendix B.
  - j. Page 42 of the draft TSP shall be amended to the current standard of a maximum of 400' length for cul-de-sacs.
  - k. Page 46 of the draft TSP, Access Management Guidelines, shall be modified to reflect Scappoose. Change shall include Major Collector Streets rather than Secondary Arterials, amending minimum spacing between intersections for local residential streets to more closely reflect the existing 200 foot grid system, removing references to higher density residential on major arterials, and indicating low to medium density for minor collector streets per existing land use patterns.
  - l. The TSP maps that indicate street projects shall be amended by adding the following notation: "For all new street construction, the undeveloped streets shown on this map represent a 200' wide corridor. Final engineering design shall determine the final location of the required street within the corridor.
3. Based on the adoption of the recommended amendments to the Comprehensive Plan and the adoption of the amended Transportation System Plan, staff recommends the Planning Commission recommend the City Council approval the following amendments to the Scappoose Municipal Code
- a. 13.38, Public Works Design Standards, Section 6, shall be amended as follows:
    - Local Streets:** 54' right of way including two 5' sidewalks, two 11' travel lanes, two 7' parking lanes and two 4' boundary lawns for required street trees.
    - Minor Collector Streets:** 60' right of way including two 6' sidewalks, two 14' shared travel lanes for automobiles and bicycles, one 8' parking lane, and two 6' boundary lawns for required street trees
    - Major Collector Streets:** 66' right of way for major collector streets with two 6' sidewalks, two 6' bicycle lanes, two 12' travel lanes, and two 6' boundary lawns for required street trees. This right of way allows for turn lanes at intersections or parking

on one side.

- b. 17.154.020 (C) shall be added and shall read as follows:

“Subject to approval of the Planner and the Public Works Director, street sections may be modified administratively based on geographical constraints of steep slopes, wetlands, flood plains, and constraints imposed by existing structures. Modifications may include, but are not limited to, reduced paving widths, elimination of on street parking and eliminating sidewalks on one side of the street.”

- c. 17.154.030 (D)(3) shall be added and shall read as follows:

“New streets shall be laid out to provide reasonably direct and convenient routes for walking and cycling within neighborhoods and accessing adjacent development”.

**Suggested Motions:**

I move that the Planning Commission adopt the findings contained in this staff report including Exhibits A through E and recommend that the City Council adopt the Comprehensive Plan Amendments.

I move that the Planning Commission adopt the findings contained in this staff report including Exhibits A through E and recommend that the City Council adopt the Scappoose Transportation System Plan as amended.

I move that the Planning Commission adopt the findings contained in this staff report including Exhibits A through E and recommend that the City Council adopt the Development Code Amendments.

Respectfully submitted,

E. L. Smith  
Assistant Planner

Attachments: Exhibit A Prioritized List of TAC Concerns  
Exhibit B Analysis of Project Impacts  
Exhibit C Fiscal Analysis of Projects  
Exhibit D Leverton Study: Economic Benefits of the Scappoose Industrial Airpark  
Exhibit E Draft Findings: Scappoose Comprehensive Urban Forestry Management Plan



# Exhibit A

## CITY OF SCAPPOOSE TRANSPORTATION SYSTEM PLAN Transportation Advisory Committee Meeting No. 1 May 3, 1995

### LIST OF ISSUES / COMMENTS

1. Evaluate traffic safety at street intersections (7 votes).  
Specifically, this relates to the following:
  - redesign of the intersection of US 30 and Scappoose-Vernonia Road.
  - need for a traffic signal at the access to the Post Office.
  - direction of travel on the one-way street across from Columbia Avenue should be reversed or made two-way with no parking.
  - access to schools located in the proximity of US 30, specifically in relation to the access by school children using crosswalks across US 30.
  - alignment of the intersection of First Street and Smith Street.
  - traffic signal at the intersection of US 30 and Old Portland Road.
2. Identify north-south local access routes, alternative to travel on US 30; and identify east-west local access routes for access to and across the highway (6 votes).
3. Identify sources and strategies for funding recommended transportation improvements (4 votes).
4. Evaluate the need for a bypass, especially as a truck route (4 votes).
5. Review street cross-section standards for local, collector, and arterial streets. This includes an evaluation of including in the standards bike lanes and sidewalks, and shoulders on the highway for School bus-stops; and improvements to existing County roads (3 votes).
6. Evaluate access to the public park near the Airport, including the need for sidewalks and bike lanes (2 votes).
7. Evaluate the need for passenger rail transportation between Portland and Astoria, for commuting and recreation purposes (2 votes).
8. Identify access management strategies along US 30, specifically in relation to access to businesses located along the highway (2 votes).
9. Evaluate vehicular mobility in downtown (2 votes).



10. Evaluate access across the railroad, and the safety of railroad crossings (1 vote).
11. Relieve traffic congestion due to truck traffic along US 30, including the coordination of traffic signals along US 30 (1 vote).
12. Evaluate street aesthetics, specifically in relation to sidewalk repair and off-street improvements (1 vote).
13. Evaluate the need for traffic signals in the City and along US 30 (1 vote).
14. Identify the percentage of population commuting to Portland, by mode of travel (No votes).
15. Identify the need for and measures to control vehicular travel speeds along US 30, between the County line and Scappoose (No votes).
16. Evaluate the need for (exclusive) bike paths, including the Scappoose Creek Greenway (No votes).
17. Evaluate the need for water passenger transportation (No votes).
18. Evaluate air transportation, including noise impacts due to proximity of development to the airport (No votes).
19. Identify street system pavement condition (No votes).
20. Develop a street system plan that takes into consideration the need for new roads/extensions associated with a possible expansion of the urban growth boundary, specifically relating to right-of-way needs (No votes).



# Exhibit B

## Analysis of Impacts of Transportation System Plan Projects

1. **Modifications to existing signal heads on Highway 30:** No conflicts due to wetlands, steep slopes, flood plain, historic sites or existing development have been identified for this project. The goal of the project is to enhance pedestrian safety at 5 of the existing intersections on Highway 30 by installation additional pole mounted signal heads on the sides of the street. The 5 intersections are located adjacent to school properties and are routinely utilized by school age pedestrians throughout the school year.
2. **Coordinate signal timing of existing signals on Highway 30:** No conflicts due to wetlands, steep slopes, flood plain, historic sites or existing residential development have been identified for this project. The goal of the project is to maximize the ability of Highway 30 to conduct traffic through the urban area during periods of peak traffic volume. Constraints due to existing signal spacing will limit vehicle speed to 15 to 20 mph if optimum coordination of signals is achieved. David Evans and Associates (DEA) recommends optimum coordination of the southbound traffic in the morning and northbound traffic in the afternoon and allowing traffic to move through at 30 to 35 mph during off-peak hours.
3. **School area traffic control improvements:** No conflicts due to wetlands, steep slopes, flood plain, historic sites or existing development have been identified for this project. This goal of this project is to fund an engineering study of the school area traffic controls to identify improvements that would enhance the safety of school age pedestrians. DEA recommends that either the City or the School District commence this study at the earliest possible time. In the fiscal analysis prepared by staff, this project has been recommended for funding by the Scappoose School District.
4. **Re-stripe Maple Street from Highway 30 to West First to provide bike lanes:** No conflicts due to wetlands, steep slopes, flood plain, historic sites or existing development have been identified for this project. This project was included in an earlier draft of the TSP prior to the Transportation Advisory Committee recommending a street standard for minor collector streets that includes 14 foot shared lanes rather than separate bike lanes. Because Maple Street is designated as a Minor Collector and will not have separate bike lanes, staff recommends this project be deleted from the project list.
5. **Construct curb, gutter and sidewalks on both sides of Maple Street from Highway 30 to West First:** No conflicts due to wetlands, steep slopes, flood plains, historic sites

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<sup>1</sup>NOTE: Project numbers are provided for ease in reference and are not reflective of priorities for project construction. Prioritization is limited to short, intermediate and long term basis as indicated on Table 14 of the Scappoose Transportation Plan.

A:\Impacts of Transportation Projects.wpd

Exhibit B: Analysis of Impacts of Transportation System Plan Projects  
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or existing development have been identified for this project. The goal of this project is to provide for improved pedestrian access to the adjacent school properties and commercial developments. The existing 60 foot wide right of way supports construction to a minor collector standard.

6. **Widen Maple Street from West First Street to West Fourth Street to recommended minor collector standards:** No conflicts due to wetlands, steep slopes, flood plains, historic sites or existing development have been identified for this project. The goal of the project is to provide enhanced pedestrian and vehicle access on Maple Street in the area of the Scappoose Middle School and to construct a collector street previously identified in the acknowledged Scappoose Comprehensive Plan (Transportation Policy 15). In conjunction with Project Number 30, 31, 48, 49, 50 and 67, East and West Maple represent a major connection for vehicular, pedestrian and bicycle traffic to connect with proposed Highway 30 alternate routes.
7. **Widen EM Watts to Major Collector standards:** The goal of this project is to construct a collector street previously identified in the acknowledged Comprehensive Plan (Transportation Policy 15). A portion of these improvements have already been constructed by adjacent property owners (Chinook Plaza and Otto Petersen School). No conflicts due to wetlands, steep slopes, flood plains, historic sites or existing development have been identified for the section from Highway 30 to the bridge. From the bridge to Dutch Canyon Road, no conflicts due to historic sites or existing development have been identified. There are areas of potential wetlands, flood plain and steep slopes. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable state and local regulations would be required. Areas located in the Scappoose Creek floodplain would be subject to the requirements of Scappoose Municipal Code 17.84. Conflicts with slopes may be addressed by eliminating the requirement for sidewalks on the side of EM Watts where steep slopes are adjacent to roadway. Staff recommends that the following statement be added to Scappoose Municipal Code 17.154.020: "Subject to approval of the Planner and the Public Works Director, street sections may be modified administratively based on geographical constraints of steep slopes, wetlands, flood plains, and constraints imposed by existing structures. Modifications may include reduced paving widths, elimination of on street parking and eliminating sidewalks on one side of the street."
8. **Add sidewalks and stripe bike lanes on High School Way:** No conflicts due to wetlands, steep slopes, flood plains, historic sites or existing development have been identified for this project. City right of way on High School Way is currently limited to the first 200 feet east of Highway 30. There are on-going discussions with the Scappoose School District regarding dedication of public right of way for the remainder of the street. The goal of this project is to construct sidewalks and stripe bike lanes to enhance school age pedestrian safety. Vehicle/Pedestrian conflicts have resulted in

injuries and support the construction of this project in a timely manner. Funding to construct these improvements on the first 200 feet which is City right of way is currently being requested from the ODOT Pedestrian Grant program. Considerations should also be given to traffic calming devices including speed bumps, pedestrian islands and a dedicated pedestrian overpass.

9. **Re-stripe Columbia Avenue from Highway 30 to West First Street to allow two way operation:** No conflicts due to wetlands, steep slopes or flood plains have been identified for this project. This section of Columbia Avenue is designated as a minor collector street in the TSP. However, there are existing structures designated as historic in the Scappoose Comprehensive Plan located on either side of the existing 40 foot right of way. To minimize impacts to those structures while enhancing east/west connectivity in the center of the City, the TSP recommends re-striping the existing 28 foot wide pavement to accommodate two 14 foot travel lanes and eliminating on street parking. While the recommendation by DEA may allow more immediate usage of Columbia Avenue, staff recommends that consideration be given to complete reconstruction of this section due to structural deficiencies in existing road base and sidewalks.
10. **Re-align the west approach from Scappoose Vernonia Highway to Highway 30:** No conflicts due to steep slopes, historic sites or existing development have been identified for this project. This project includes a new bridge, removal of old structures, addition of bike lanes and sidewalks and would construction would be coordinated with Project 11, signal improvements. The project is located in the Scappoose Creek floodplain although all proposed improvements would be constructed outside of the Scappoose Creek floodway. Because floodplain properties are involved, a wetlands determination would be required prior to granting an infrastructure permit for construction of the project. Compliance with Scappoose Municipal Code 17.84 and 17.85 and applicable State and Federal regulations minimizes potential impacts on both the floodplain and possible wetlands. In conjunction with Project Number 11, 33, 61, and 62, this project supports east/west connectivity, alternate routes for industrial related traffic, and connections to alternate north/south routes. Funding is being requested from the State Transportation Improvement Program (STIP).
11. **Modify existing traffic signal at Highway 30 and Scappoose Vernonia Highway:** No conflicts due to wetlands, steep slopes, flood plains, historic sites or existing development have been identified for this project. When completed, the re-alignment addressed in above (Project Number 10) would support modification of signalization from the current 3 way configuration to a 4 way configuration. The modified signal would facilitate east/west connectivity on a major collector street in an area where no connections currently exist.
12. **Reassignment of stop controls for arterial and collector streets:** No conflicts due to

wetlands, steep slopes, flood plains, historic sites or existing development have been identified for this project. The goal of this project is to fund a review by a traffic consultant of the revised street classification system to insure that higher volume streets would always have the right of way and lower volume streets would be stop controlled. Completion of the project and implementation of any recommended revisions to traffic controls facilitates movement of the maximum volume of traffic on identified arterial and collector streets.

13. **Provide a pedestrian island at Highway 30 and Williams Street:** No conflicts due to wetlands, steep slopes, flood plains, historic sites or existing development have been identified for this project. The goal of this project is to provide an interim method to facilitate pedestrian crossings of the 100 foot wide Highway 30 right of way. The St. Helens Federal Credit Union and the Federal Building are located on the west side of the Highway, but there are no protected crossings for the residential properties on the east side of Highway 30 within 1000 feet of this location.
14. **Upgrade Old Portland Road and Walnut Street to major collector standards and connect Old Portland Road to Walnut Street:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. The majority of the proposed right of way is currently vacant which limits impacts on existing developments. The City Engineer is in the process of preparing engineering drawings and an assessment role for creation of a Local Improvement District to fund this project as previously directed by the City Council. Both Old Portland Road and Walnut Street and this connection are included on the existing acknowledged Comprehensive Plan collector street network map.
15. **Widen JP West Road from Highway 30 to West First Street:** No conflicts due to wetlands, steep slopes or flood plains have been identified for this project. JP West is currently constructed on a 40 foot right of way. There is a structure identified as historic located at the intersection of JP West and West First Street. Due to the angle of the intersection, no negative impacts are anticipated. Existing development is immediately adjacent to the right of way. To construct improvements to Minor Collector standards, this project would require the dedication of right of way and may require removal of structures. Modifications to design standards may allow construction improvements within the current right of way.
16. **Widen JP West Road from West First Street to West Fourth Street:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. JP West is currently constructed on a 40 foot right of way. To construct improvements to Minor Collector standards, this project would require the dedication of right of way and may reduce existing residential driveway lengths below minimum standards. Modifications to design standards may allow construction of improvements



within the current right of way.

17. **Widen Old Portland Road from the Urban Growth Boundary to proposed Walnut/Highway 30 Connection:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. This project would extend the improvements identified in Project 14 to the south edge of the UGB and would provide an alternative north-south route to Highway 30 for subdivisions located to the west of Old Portland Road and commercial developments on the east. A portion of this project is included in the draft of the Columbia County Transportation Plan. Anticipated traffic volumes may support a cooperative effort to construct the street to full urban standards.
18. **Re-stripe Walnut Road from High 30 to the Old Portland Road Extension to provide bike lanes:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. This project would be constructed in conjunction with Project 14, Old Portland Road upgrade.
19. **Re-stripe West Fourth Street from Creekview to EM Watts to provide bike lanes:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. This project provides an identified bike lanes for children traveling from Kingsbrook Subdivision to the Otto Petersen/Middle School Complex.
20. **Re-stripe West Fourth Street from EM Watts to Maple to provide bike lanes:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project.
21. **Construct curb, gutter and sidewalks on West Fourth Street from EM Watts to Maple:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. Consideration should be given to the poor structural condition of the existing roadway.
22. **Re-align and widen West Fourth Street from Maple to JP West:** No conflicts due to wetlands, steep slopes or historic sites have been identified for this project. A portion of the project lies in the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84. This project impacts an existing neighborhood and may require the dedication of additional right of way . Impacts on lengths of existing driveways will require consideration. Eliminating of all on street parking may allow construction of improvements within existing right of way.
23. **Widen West First Street from Maple to JP West:** No conflicts due to wetlands, steep slopes or floodplains have been identified for this project. There is a historic structure located on the east side of West First Street and there are a total of six historic structures fronting on West First Street. The project impacts an existing neighborhood and may

require the dedication of additional right of way. Adjacent properties are zoned commercial and future redevelopment of existing residential uses is encouraged by the Scappoose Comprehensive Plan. Staff recommends that consideration be given to seeking funding to provide the technical expertise to advise the Council regarding redefining the West First Street Projects (23-26) to minimize traffic lanes, increase sidewalk widths and on-street parking and install pedestrian friendly lighting in support of increased "village style" commercial development prior to adoption of any projects related to this area.

24. **Widen West First Street from JP West to Columbia:** No conflicts due to wetlands, steep slopes or floodplains have been identified for this project. There is a historic structure located on the west side of West First Street and there are a total of six historic structures fronting on West First Street. The project impacts an existing neighborhood and may require the dedication of additional right of way. Adjacent properties are zoned commercial and future redevelopment of existing residential uses is encouraged by the Scappoose Comprehensive Plan. Staff recommends that consideration be given to seeking funding to provide the technical expertise to advise the Council regarding redefining the West First Street Projects (23-26) to minimize traffic lanes, increase sidewalk widths and on-street parking and install pedestrian friendly lighting in support of increased "village style" commercial development prior to adoption of any projects related to this area.
25. **Widen West First Street from Columbia Avenue to Williams Street:** No conflicts due to wetlands, steep slopes or floodplains have been identified for this project. There is a historic structure located on the east side of West First Street and there are a total of six historic structures fronting on West First Street. The project impacts an existing neighborhood and may require the dedication of additional right of way. Adjacent properties are zoned commercial and future redevelopment of existing residential uses is encouraged by the Scappoose Comprehensive Plan. Staff recommends that consideration be given to seeking funding to provide the technical expertise to advise the Council regarding redefining the West First Street Projects (23-26) to minimize traffic lanes, increase sidewalk widths and on-street parking and install pedestrian friendly lighting in support of increased "village style" commercial development prior to adoption of any projects related to this area.
26. **Widen West First Street from Williams Street to EJ Smith:** No conflicts due to wetlands, steep slopes or floodplains have been identified for this project. There is a historic structure located on the east side of West First Street and there are a total of six historic structures fronting on West First Street. The project impacts an existing neighborhood and may require the dedication of additional right of way. Adjacent properties are zoned commercial and future redevelopment of existing residential uses is encouraged by the Scappoose Comprehensive Plan. Staff recommends that consideration be given to seeking funding to provide the technical expertise to advise the Council

regarding redefining the West First Street Projects (23-26) to minimize traffic lanes, increase sidewalk widths and on-street parking in support of increased "village style" commercial development prior to adoption of any projects related to this area.

27. **Widen EJ Smith from Wickstrom Drive to Fifth Street:** The TSP maps indicate this project is actually the widening of EJ Smith from West First Street to Fifth Street. No conflicts due to steep slopes or historic sites have been identified for this project. This project lies in the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. To construct improvements to Minor Collector standards, this project would require the dedication of right of way and may reduce existing residential driveway lengths below minimum standards. Obtaining additional right of way impacts existing residences predominantly located on the north side. The EJ Smith Road pump station on the south side may also be a factor. Modifications to design standards may allow construction of improvements within the current right of way.
28. **Widen EJ Smith from Fifth Street to the Urban Growth Boundary:** No conflicts due to wetlands, flood plains or historic sites have been identified for this project. This project contains areas that may be subject to the requirements of Scappoose Municipal Code 17.86 which regulates slope hazard areas. To construct improvements to Minor Collector standards, this project would require the dedication of right of way and may reduce existing residential driveway lengths below minimum standards. Modifications to design standards may allow construction of improvements within the current right of way. At the Urban Growth Boundary, EJ Smith would transition to County standards.
29. **Widen EJ Smith Road bridge over Scappoose Creek:** No conflicts due to steep slopes or historic sites have been identified for this project. This project lies in the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84 regulating flood plain development. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required.
30. **Widen SE Maple Street from Highway 30 to Fourth Street:** No conflicts due to steep slopes, flood plains or wetlands have been identified for this project. There is a historic structure on the southeast corner of SE Maple and First Street. Increasing potential for pedestrian vehicle conflict due to truck traffic to the nearby light industrial district and school children traveling from the Petersen/Middle School complex to the east side of Scappoose supports construction of the improvements. Eliminating all on street parking from First Street to Second Street may allow construction of 2 fourteen foot wide travel lanes for shared vehicle/bicycle usage, 5 foot wide sidewalks on both sides and a 10' foot

planting strip within the existing 60 right of way thereby buffering the historic site and existing residences while allowing improvements. Maple serves as primary access to the central east side of the community. The signal at SE Maple and Highway 30 provides the only signalized access to the east side of Scappoose between High School Way (a private road) and Columbia Avenue, a distance of approximately ½ mile. From Second Street to Fourth Street, it will be necessary to consider the current use of on street parking and the length of existing driveways prior to design and construction.

31. **Add sidewalks and re-stripe with bike lanes from 4<sup>th</sup> Street to the deadend on SE Maple:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project.
32. **Widen Columbia Avenue from Highway 30 to West Lane Road:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. Columbia Avenue currently has a 40 foot wide right of way. This project would eliminate parking on one side and require an additional 20 foot of right of way. There are existing commercial structures located adjacent to Columbia Avenue on both sides which would be heavily impacted by increasing the existing right of way including TVBS, PTI, the Teddy Bear Day Care Building, the Dental offices at 3<sup>rd</sup> and Columbia, the Barber Shop and the Rose Valley Market. Another project has been recommended to create Forest Road as an alternative for industrial traffic from West Lane. Designating Columbia Avenue as a Minor Collector and limiting improvements to two 14 foot wide shared vehicle/bicycle lanes and 6 foot wide sidewalks with no on-street parking reduces potential impacts of this project from remodeling buildings to developing alternative parking.
33. **Construct Forest Road from Highway 30 to West Lane Road:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. The City has already purchased the 60 foot wide right of way necessary to construct this project and no conflicts with existing structures have been identified. The construction of Forest Road provides signalized ingress and egress from Highway 30 to the industrial properties and the Scappoose Industrial Airpark on the northeast side of Scappoose with completion of the re-alignment of the Scappoose Vernonia Highway intersection and modification of the existing signal.
34. **Widen East Fourth Street from SE Maple Street to SE Oak Street:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. To construct improvements to Minor Collector standards, this project may require the dedication of right of way and may reduce existing residential driveway lengths below minimum standards. Modifications to design standards may allow construction of improvements within the current right of way.

35. **Add sidewalks and re-stripe bike lanes on East Fourth Street from SE Oak Street to East Columbia Ave:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. The project is proposed within the current right of way and no conflicts with existing structures have been identified. Staff has identified a need for a maintenance overlay for this street in addition to sidewalks and re-striping.
36. **Construct Sixth Street from SE Elm Avenue to SE Maple Street:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. Due to the existing residence, the alignment at the intersection of Sixth and Elm would require an angle and a traffic island but vacant land currently exists for this improvement.
37. **Widen Sixth Street from Elm Avenue to Vine Street:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. This section of Sixth Street appears to have been constructed to half street standards. Vacant land is available on the east side to provide adequate right of way for improvements minimizing conflicts with existing structures.
38. **Construct Williams Street from Highway 30 to West First Street:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. The first 100 feet of right of way for this new street is currently vacant. The western 100 feet contains parking for the St. Helens Federal Credit Union. With the construction of this project and the installation of a new traffic signal replacing the current emergency only signal currently used by the Scappoose Fire District, east/west connectivity on the north side of Scappoose would be greatly enhanced while sharply reducing congestion at the intersection of Laurel and Highway 30.
39. **Install new traffic signal at Highway 30 and Williams Street:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. This signal will replace the existing emergency only signal regulating egress from the Scappoose Rural Fire District facility and will provide the only signalized intersection serving development in the northwest area of the community reducing congestion at Laurel Street and Highway 30 and providing east/west connectivity.
40. **Widen EM Watts from Fourth Street to Keys Road:** No conflicts due to steep slopes, or historic sites have been identified for this project. This project lies in the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. To construct improvements to Minor Collector standards, this project would require the dedication of right of way and may reduce existing residential driveway lengths below minimum standards. Modifications to design standards may allow

construction of improvements within the current right of way.

41. **Widen EM Watts Road from Keys Road to Dutch Canyon:** No conflicts due to historic sites have been identified for this project. Where EM Watts crosses Coal Creek, this project affects the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. This project also contains areas that may be subject to the requirements of Scappoose Municipal Code 17.86 which regulates slope hazard areas. Existing residences are generally located to minimize impacts of additional necessary right of way. Construction of this project completes one section of a major collector extending from Dutch Canyon to Scappoose Vernonia Highway and providing an alternative to Highway 30 on the west side of Scappoose.
42. **Widen existing bridge over Scappoose Creek on EM Watts Road:** No conflicts due to steep slopes or historic sites have been identified for this project. This project lies in the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84 regulating flood plain development. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required.
43. **Widen Eggleston Lane from EM Watts to the deadend:** No conflicts due to historic sites have been identified for this project. Drainage from this project may affect the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84. Depending on the actual route selected for this project, there may be areas subject to the requirements of Scappoose Municipal Code 17.86 which regulates slope hazard areas or a wetlands determination may be necessary. Should wetlands be identified, compliance with all applicable State and local regulations would be required. Minimizing impacts on existing residences will be a factor in determining the actual route and additional engineering would be necessary to determine if a viable route exists that would not require relocation of structures. Construction of this project completes one section of a major collector extending from Dutch Canyon to Scappoose Vernonia Highway and providing an alternative to Highway 30 on the west side of Scappoose.
44. **Construct Eggleston Lane from deadend to JP West Road:** No conflicts due to historic sites have been identified for this project. Depending on the actual route selected for this project, there are areas subject to the requirements of Scappoose Municipal Code 17.86 which regulates slope hazard areas. A significant ravine exists in this area. A wetlands determination may be necessary, and portions of the road way may be located in the Scappoose Creek flood plain and subject to the requirements of Scappoose Municipal

Code 17.84. Should wetlands be identified, compliance with all applicable State and local regulations would be required. Minimizing impacts on existing residences will be a factor in determining the actual route. Construction of this project completes one section of a major collector extending from Dutch Canyon to Scappoose Vernonia Highway and providing an alternative to Highway 30 on the west side of Scappoose.

45. **Construct Eggleston Lane from JP West Road to EJ Smith Road:** No conflicts due to historic sites have been identified for this project. Depending on the actual route selected for this project, there may be areas subject to the requirements of Scappoose Municipal Code 17.86 which regulates slope hazard areas. a wetlands determination may be necessary, and portions of the road way may be located in the Scappoose Creek flood plain and subject to the requirements of Scappoose Municipal Code 17.84. Should wetlands be identified, compliance with all applicable State and local regulations would be required. Minimizing impacts on existing residences will be a factor in determining the actual route. Construction of this project completes one section of a major collector extending from Dutch Canyon to Scappoose Vernonia Highway and providing an alternative to Highway 30 on the west side of Scappoose.
46. **Widen Fifth Street from EJ Smith To Wheeler Street:** No conflicts due to historic sites, steep slopes or wetlands have been identified for this project. The road way is located in the Scappoose Creek flood plain and is subject to the requirements of Scappoose Municipal Code 17.84. According to the TSP Street Inventory, Fifth Street currently contains a 60 foot right of way and is adequate to construct the proposed improvements. Construction of this project completes one section of a major collector extending from Dutch Canyon to Scappoose Vernonia Highway and providing an alternative to Highway 30 on the west side of Scappoose.
47. **Construct Fifth Street from Wheeler to Scappoose Vernonia Highway:** No conflicts due to historic sites or steep slopes have been identified for this project. Depending on the actual route selected for this project, a wetlands determination may be necessary, and portions of the road way may be located in the Scappoose Creek flood plain and subject to the requirements of Scappoose Municipal Code 17.84. Should wetlands be identified, compliance with all applicable State and local regulations would be required. Minimizing impacts on existing residences will be a factor in determining the actual route and additional engineering would be required to determine if a viable route exists that would not require relocation of structures. Construction of this project completes one section of a major collector extending from Dutch Canyon to Scappoose Vernonia Highway and providing an alternative to Highway 30 on the west side of Scappoose and provides needed secondary ingress and egress for residents in the northwest section of the community.
48. **Widen Maple Street from West Fourth Street to the deadend:** No conflicts due to

historic sites. steep slopes or wetlands have been identified for this project. The far west end of the road way is located in the Scappoose Creek flood plain and is subject to the requirements of Scappoose Municipal Code 17.84. According to the TSP Street Inventory, Maple Street currently contains a 60 foot right of way and is adequate to construct the proposed improvements.

49. **Construct Maple Street from deadend to Eggleston Lane:** No conflicts due to historic sites have been identified for this project. Where Maple Street crosses Scappoose Creek, this project affects the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84. Staff recommends construction of this project in a manner that would allow the roadway to remain open during high water events providing ingress and egress for the entire west side. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. This project also contains areas that may be subject to the requirements of Scappoose Municipal Code 17.86 which regulates slope hazard areas. Staff recommends this project be constructed in conjunction with Project 50.
50. **Construct bridge over Scappoose Creek on Maple:** No conflicts due to steep slopes or historic sites have been identified for this project. This project lies in the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84 regulating flood plain development. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. Staff recommends construction of this project in a manner that would allow the bridge to remain open during high water events providing ingress and egress for the entire west side.
51. **Widen JP West from Fourth Street to Eggleston Lane:** No conflicts due to steep slopes or historic sites have been identified for this project. This project lies in the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. To construct improvements to Minor Collector standards, this project would require the dedication of right of way and may reduce existing residential driveway lengths below minimum standards. Obtaining additional right of way impacts existing residences predominantly located on the north side. Modifications to design standards may allow construction of improvements within the current right of way. Staff recommends this project be constructed in conjunction with Project 52.
52. **Widen existing bridge over Scappoose Creek on JP West:** No conflicts due to steep slopes or historic sites have been identified for this project. This project lies in the



Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84 regulating flood plain development. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required.

53. **Widen JP West from Eggleston Lane to Keys Road:** No conflicts due to historic sites have been identified for this project. Depending on the final route of Eggleston Lane, this project may affect the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84. A wetlands determination may be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. This project contains areas that may be subject to the requirements of Scappoose Municipal Code 17.86 which regulates slope hazard areas. To construct improvements to Minor Collector standards, this project would require the dedication of right of way and may reduce existing residential driveway lengths below minimum standards. Modifications to design standards may allow construction of improvements within the current right of way.
54. **Widen JP West Road from Keys Road to the Urban Growth Boundary:** No conflicts due to wetlands, flood plains or historic sites have been identified for this project. This project contains areas that may be subject to the requirements of Scappoose Municipal Code 17.86 which regulates slope hazard areas. To construct improvements to Minor Collector standards, this project would require the dedication of right of way and may reduce existing residential driveway lengths below minimum standards. Modifications to design standards may allow construction of improvements within the current right of way. At the Urban Growth Boundary, JP West would transition to County standards.
55. **Widen Dutch Canyon Road from Old Portland Road to EM Watts Road:** No conflicts due to historic sites have been identified for this project. Portions of the project are located in the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. This project also contains areas that may be subject to the requirements of Scappoose Municipal Code 17.86 which regulates slope hazard areas. Existing residences are generally located to minimize impacts of additional necessary right of way. Construction of this project completes one section of a major collector extending from Dutch Canyon to Scappoose Vernonia Highway and providing an alternative to Highway 30 on the west side of Scappoose.
56. **Widen Callahan Road from Old Portland Road to the Urban Growth Boundary:** No conflicts due to wetlands, flood plains or historic sites have been identified for this project. This project contains areas that may be subject to the requirements of

Scappoose Municipal Code 17.86 which regulates slope hazard areas. The street inventory indicates the right of way is 40 feet. To construct improvements to Minor Collector standards, this project would require the dedication of right of way and may reduce existing residential driveway lengths below minimum standards. Modifications to design standards may allow construction of improvements within the current right of way. At the Urban Growth Boundary, Callahan Road would transition to County standards.

57. **Construct Fourth Street from JP West to First Street:** No conflicts due to historic sites have been identified for this project. The majority of this project has already been constructed by adjacent development of the Meersburg PUD and Creekside Apartments. This project would connect these sections. The remaining section project is located in the Scappoose Creek flood plain and is subject to the requirements of Scappoose Municipal Code 17.84. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required.
58. **Widen Scappoose Vernonia Highway from Highway 30 to Urban Growth Boundary:** No conflicts due to historic sites or steep slopes have been identified for this project. The project is located entirely within the existing right of way. Portions of the project are located in the Scappoose Creek flood plain and would be subject to the requirements of Scappoose Municipal Code 17.84. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. At the Urban Growth Boundary, Scappoose Vernonia Highway would transition to County Road standards.
59. **Widen Columbia Avenue from West Lane to Bird Road:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. Columbia Avenue currently has a 40 foot wide right of way. This project would eliminate parking on one side and require an additional 20 foot of right of way. There are existing structures located adjacent to Columbia Avenue on both sides which would be heavily impacted by increasing the existing right of way. Designating Columbia Avenue as a Minor Collector and limiting improvements to two 14 foot wide shared vehicle/bicycle lanes and 6 foot wide sidewalks with no on-street parking reduces potential impacts.
60. **Widen Columbia Avenue from Bird Road to the Urban Growth Boundary:** No conflicts due to steep slopes or historic sites have been identified for this project. On the east end, portions of this project are located in a designated flood plain and are subject to the requirements of Scappoose Municipal Code 17.84. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. Columbia Avenue

currently has a 40 foot wide right of way. This project would eliminate parking on one side and require an additional 20 foot of right of way. There are existing structures located adjacent to Columbia Avenue on both sides which would be heavily impacted by increasing the existing right of way and consideration of those impacts will be required in final engineering design. Modifications to street standards may allow construction of improvements within the current right of way. At the Urban Growth Boundary, Columbia Avenue will transition to County standards.

61. **Construct Forest Road West Lane Road to Bird Road:** No conflicts due to wetlands, steep slopes, flood plains or historic sites have been identified for this project. The City has already purchased the 60 foot wide right of way necessary to construct this project and no conflicts with existing structures have been identified. This section of Forest Road would connect the Bird Road/Ninth Street Highway 30 alternate route on the east side to a signalized intersection.
62. **Construct Forest Road from Bird Road to Urban Growth Boundary:** No conflicts due to steep slopes or historic sites have been identified for this project. The City has already purchased the 60 foot wide right of way necessary to construct this project and no conflicts with existing structures have been identified. On the east end, portions of this project may be located in a recognized flood plain area and would be subject to the requirements of Scappoose Municipal Code 17.84. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. At the Urban Growth Boundary, Forest Road will transition to County standards.
63. **Widen West Lane Road from Columbia Avenue to Forest Road:** No conflicts due to wetlands, steep slopes or flood plains have been identified for this project. The entire length of West Lane Road is of secondary historic interest as the site of informal racing of horses and early automobiles. Continued use as a roadway should not be regarded as a conflict. To construct improvements to Major Collector standards necessary to minimize congestion for residents working at industrial projects to the northeast, this project would require the dedication of 20 foot of additional right of way. Minimizing impacts on existing structures would be a consideration in engineering design. As the property on the west side is generally vacant, the alignment may be structured to eliminate impacts on residences to the east.
64. **Widen West Lane Road from Forest Road Highway 30:** No conflicts due to wetlands, steep slopes or flood plains have been identified for this project. The entire length of West Lane Road is of secondary historic interest as the site of informal racing of horses and early automobiles. Continued use as a roadway should not be regarded as a conflict. To construct improvements to Major Collector standards necessary to minimize congestion for residents working at industrial projects to the northeast, this project would

require the dedication of 20 foot of additional right of way. Existing structures are generally located outside the proposed right of way and minimizing impacts would be a consideration in engineering design.

65. **Widen Sixth Street from High School Drive to North Park Drive:** The majority of this project was completed in conjunction with construction of the Seven Oaks and Rolling Hills Subdivisions. This project is a segment of the extension of Havlik Drive from the west across Highway 30 enhancing east/west connectivity. Presently, residences in the southeast area are required to drive approximately ½ mile north to High School Way (a private road), turn west to the Highway 30, then return ½ mile south to access commercial developments directly west of their residences across Highway 30.
66. **Construct North Park Drive from Sixth Street to Highway 30:** No conflicts due to steep slopes, flood plain or historic sites have been identified for this project. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. This project extends Havlik Drive from the west across Highway 30 enhancing east/west connectivity. Presently, residences in the southeast area are required to drive approximately ½ mile north to High School Way (a private road), turn west to the Highway 30, then return ½ mile south to access commercial developments directly west of their residences across Highway 30. Construction would allow ease of access for residences in the southeast area to these commercial developments and would support closure of the private, unimproved, gravel crossings of the railroad line south of the candle. This project is located immediately outside the existing Urban Growth Boundary and may require a goals exception prior to construction.
67. **Extend Maple Street east to Bird Road:** No conflicts due to steep slopes, flood plain or historic sites have been identified for this project. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. This project connects Maple Street with the extension of Havlik Road/9th Street, the proposed Highway 30 alternate route on the east side. Minimizing impacts on existing structures would be a consideration in engineering design.
68. **Widen Bird Road from Columbia Avenue to Forest Road:** No conflicts due to steep slopes, flood plain or historic sites have been identified for this project. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. Construction of this project completes one section of a major collector connecting Havlik Road to Forest Road and providing an alternative to Highway 30 on the east side of Scappoose. The street inventory does not indicate the existing right of way on Bird Road and purchase of additional right of way may be necessary. Minimizing impacts on

existing structures would be a consideration in engineering design.

69. **Construct Bird Road from Columbia Avenue to the High School Drive Extension:** This title of this project should be amended read "construct 9<sup>th</sup> Street from Columbia Avenue to the Vine Street Extension". There is a historic home and barn located at the end of High School Way. Staff has reviewed alternate routes for this connection and recommends that Vine Street be extended to avoid conflicts with the historic structures. This recommendation minimizes potential impacts of continued private ownership of High School Way. No conflicts due to steep slopes or flood plain have been identified for this project. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. Minimizing impacts on existing structures would be a consideration in engineering design. Construction of this project completes one section of a major collector connecting Havlik Road to Forest Road providing an alternative to Highway 30 on the east side of Scappoose.
70. **Construct Bird Road from High School Drive Extension to Highway 30:** This title of this project should be amended read "construct 9<sup>th</sup> Street from Vine Street Extension to Highway 30. As amended, no conflicts due to steep slopes, flood plain or historic sites have been identified for this project. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. A portion of this project has been completed with the construction of 9<sup>th</sup> Street in the Seven Oaks Subdivision. To construct improvements to Major Collector standards, this project would require the dedication of right of way and would reduce existing residential driveway lengths below minimum standards. Eliminating all on street parking will allow re-striping of the existing paving to provide 2 eleven foot wide travel lanes and two five foot wide bike lanes. Both the travel lane and the bike lanes will be narrower in the previously constructed section and may serve as traffic calming devices in the residential section of this major collector.
71. **Extend High School Drive east to the Bird Road Extension:** The title of this project should be amended to read "Extend Vine Street east to 9<sup>th</sup> Street". As previously discussed under Project 69, there is a historic home and barn located at the end of High School Way. Staff has reviewed alternate routes for this connection and recommends that Vine Street be extended to avoid conflicts with the historic structures. This recommendation minimizes potential impacts of continued private ownership of High School Way. No conflicts due to steep slopes or flood plain have been identified for this project. A wetlands determination would be necessary prior to design and construction. Should wetlands be identified, compliance with all applicable State and local regulations would be required. Minimizing impacts on existing structures would be a consideration in engineering design. Construction of this project connects Vine Street with the 9<sup>th</sup>

Street/Havlik Road alternative to Highway 30.

72. **Construct a bike path along Scappoose Creek from Dutch Canyon Road to Scappoose Vernonia Highway:** No conflicts with steep slopes or historic sites have been identified for this project. The entire project would be located in the Scappoose Creek Floodplain and wetlands determinations would be required prior to construction. Minimizing environmental impacts would be a consideration in engineering design and selection of surfacing materials. The project would provide an alternative for bicyclists to access all main bike routes while providing a buffer from more intense development for the area adjacent to Scappoose Creek. Staff concurs with DLCD's comment that making a planning decision to build the path contingent on receiving ODOT funding is inappropriate and the phrase "or the project will not be built" should be deleted from the draft TSP.

## Exhibit C

### Scappoose Transportation Plan Projects Cost Analysis

Project Number	ODOT	Required by existing Development	Required by future Development	Other Sources	Comments
1	\$15,000.00	\$0.00	\$0.00	\$0.00	
2	\$10,000.00	\$0.00	\$0.00	\$0.00	
3	\$0.00	\$0.00	\$0.00	\$100,000.00	School District
4	\$0.00	\$1,000.00	\$0.00	\$0.00	
5	\$0.00	\$39,500.00	\$0.00	\$0.00	
6	\$0.00	\$224,000.00	\$0.00	\$0.00	
7	\$0.00	\$473,000.00	\$0.00	\$0.00	Partially completed by new construction
8	\$0.00	\$0.00	\$0.00	\$51,800.00	Pedestrian Grant Program
9	\$0.00	\$20,000.00	\$0.00	\$0.00	Estimate may be considerably less than actual cost
10	\$432,000.00	\$0.00	\$0.00	\$0.00	
11	\$0.00	\$50,000.00	\$0.00	\$0.00	
12	\$0.00	\$10,000.00	\$0.00	\$0.00	
13	\$20,000.00	\$0.00	\$0.00	\$0.00	
14	\$0.00	\$0.00	\$615,000.00	\$0.00	
15	\$0.00	\$84,000.00	\$0.00	\$0.00	Some funds from Creekside Apts. SDC's
16	\$0.00	\$294,000.00	\$0.00	\$0.00	





Project Number	ODOT	Required by existing Development	Required by future Development	Other Sources	Comments
17	\$0.00	\$0.00	\$0.00	\$1,377,500.00	Columbia County
18	\$0.00	\$0.00	\$1,400.00	\$0.00	
19	\$0.00	\$5,200.00	\$0.00	\$0.00	
20	\$0.00	\$3,000.00	\$0.00	\$0.00	
21	\$0.00	\$0.00	\$0.00	\$118,500.00	School District
22	\$0.00	\$884,000.00	\$0.00	\$0.00	Significant impact on neighborhood?
23 to 26	\$0.00	\$0.00	\$0.00	\$0.00	Remove from proposed list of projects due to conflicts with future redevelopment plans
27	\$0.00	\$342,000.00	\$0.00	\$0.00	
28	\$0.00	\$892,000.00	\$400,000.00	\$0.00	
29	\$0.00	\$140,000.00	\$0.00	\$0.00	
30	\$0.00	\$392,000.00	\$0.00	\$0.00	
31	\$0.00	\$14,000.00	\$0.00	\$0.00	
32	\$0.00	\$700,000.00	\$0.00	\$0.00	
33	\$0.00	\$0.00	\$588,000.00	\$0.00	
34	\$0.00	\$82,500.00	\$0.00	\$0.00	
35	\$0.00	\$21,000.00	\$0.00	\$0.00	
36	\$0.00	\$0.00	\$390,000.00	\$0.00	



Project Number	ODOT	Required by existing Development	Required by future Development	Other Sources	Comments
37	\$0.00	\$0.00	\$445,500.00	\$0.00	
38	\$0.00	\$0.00	\$195,000.00	\$0.00	
39	\$125,000.00	\$0.00	\$0.00	\$0.00	
40	\$0.00	\$0.00	\$441,000.00	\$0.00	
41	\$0.00	\$0.00	\$1,679,000.00	\$0.00	
42	\$0.00	\$140,000.00	\$0.00	\$0.00	
43	\$0.00	\$299,000.00	\$0.00	\$0.00	
44	\$0.00	\$0.00	\$1,148,000.00	\$0.00	
45	\$0.00	\$0.00	\$1,517,000.00	\$0.00	
46	\$0.00	\$188,500.00	\$0.00	\$0.00	
47	\$0.00	\$205,000.00	\$205,000.00	\$0.00	Removes existing home. Costs split ½ City and ½ development
48	\$0.00	\$70,000.00	\$0.00	\$0.00	
49	\$0.00	\$0.00	\$546,000.00	\$0.00	
50	\$0.00	\$0.00	\$140,000.00	\$0.00	
51	\$0.00	\$210,000.00	\$0.00	\$0.00	
52	\$0.00	\$140,000.00	\$0.00	\$0.00	
53	\$0.00	\$756,000.00	\$0.00	\$0.00	



Project Number	ODOT	Required by existing Development	Required by future Development	Other Sources	Comments
54	\$0.00	\$0.00	\$576,000.00	\$0.00	
55	\$0.00	\$1,610,000.00	\$0.00	\$0.00	Partial funding from SDC's
56	\$0.00	\$0.00	\$483,000.00	\$0.00	
57	\$0.00	\$0.00	\$1,326,000.00	\$0.00	
58	\$0.00	\$0.00	\$360,000.00	\$0.00	
59	\$0.00	\$952,000.00	\$0.00	\$0.00	
60	\$0.00	\$0.00	\$1,302,000.00	\$0.00	
61	\$0.00	\$0.00	\$574,000.00	\$0.00	
62	\$0.00	\$0.00	\$1,302,000.00	\$0.00	
63	\$0.00	\$377,000.00	\$0.00	\$0.00	Partial SDC funding
64	\$0.00	\$0.00	\$3,944,000.00	\$0.00	
65	\$0.00	\$0.00	\$420,000.00	\$0.00	
66	\$0.00	\$0.00	\$1,560,000.00	\$0.00	
67	\$0.00	\$0.00	\$819,000.00	\$0.00	
68	\$0.00	\$0.00	\$68,000.00	\$0.00	
69	\$0.00	\$0.00	\$2,173,000.00	\$0.00	
70	\$0.00	\$0.00	\$3,567,000.00	\$0.00	Impacts on Wetlands?
71	\$0.00	\$0.00	\$507,000.00	\$0.00	Impacts on Historic Home?



Project Number	ODOT	Required by existing Development	Required by future Development	Other Sources	Comments
72	\$0.00	\$1,080,000.00	\$0.00	\$0.00	Partial Parks SDC funding
	\$602,000.00	\$10,698,700.00	\$27,291,900.00	\$1,647,800.00	





Exhibit D

Friends of Scappoose Airport

# Economic Benefits of Scappoose Airport

October 30, 1996



- Dust, truck traffic, potential aviation hazards, and destruction of aesthetics are key concerns about the proposed gravel pit.
- A new mine will adversely affect both the Port of St. Helens and tenant's plans at the airport.

### **Conclusions**

- The airport and surrounding lands are unique assets helping Columbia County diversify the local economic base and create jobs. The proposed pit will threaten this potential, destroying many of the competitive strengths the airport now offers. There are other nearby sources of aggregate for Lone Star, so the community should not jeopardize its future by allowing non-compatible uses of lands adjacent to the airport.
- Any short-term gains from the proposed surface-mining will be more than offset by loss of much larger opportunities available through airport development.

### Population Growth Rates

Population Area	Avg. An. Growth Rate 1985-1995 (in percent)
Columbia County	1.0
Portland Metro Area	2.2
Oregon	1.6

Source: Gene Leverton and Associates

Population growth has been slower in Columbia County than the metropolitan area because of several cross-currents in the economic base. Columbia County's economic base is in transition, slowing the net growth rate.

There is a strong influx of people moving out of Portland into adjacent rural areas such as Columbia County. The motivation is lower cost housing and rural settings. Countering this growth is out-migration caused by closure of large employers, such as the Trojan nuclear plant in 1993. The fact that there is a positive net change indicates the county is attracting new residents and making a transition away from being entirely natural resource-based.

The positive direction of economic growth is due to proximity to the Portland market and distribution system. In the past, Columbia County was much more of a resource-based economy supplying raw materials or commodities such as gravel, lumber, and paper to the Portland area for consumption or distribution.

The current economy is diversifying more toward light manufacturing and services. Finished products include plastic containers, ceiling tiles, aircraft, aircraft parts, and related products and components. The transition to light manufacturing helps diversify the local economy in an important way. Quite often the management team, employees, and supporting companies live in the community where the product is made. This is the case with the new airport tenants.



## Trends

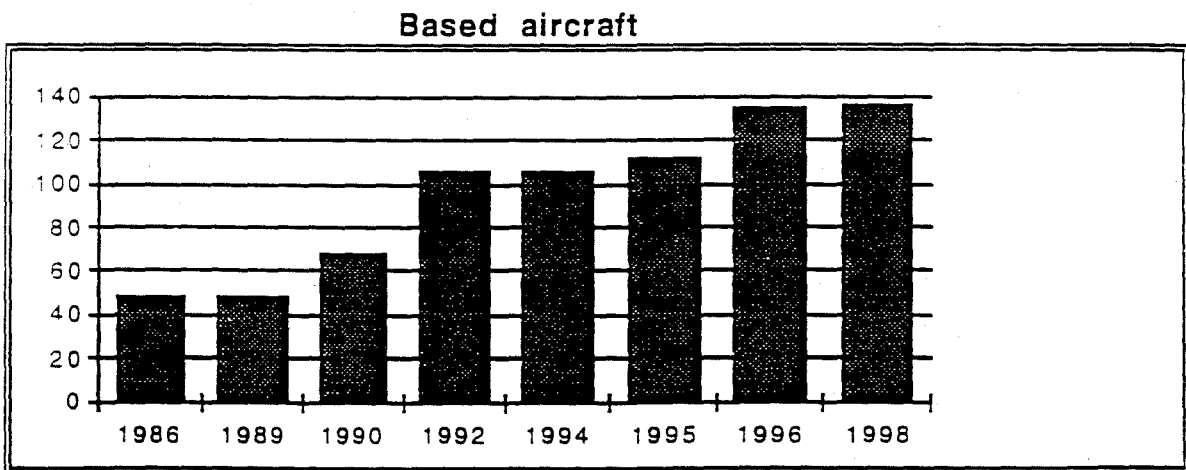
There are several underlying trends affecting population growth in Columbia County. A leading factor is that people are discovering and appreciating Columbia County as a small-town, rural setting within 30 minutes of Portland. The county is changing from a rural community to a more suburban one.

It is significant that the four new tenants at the airport began their businesses in metropolitan Portland and moved to Scappoose airport mostly for the quality of life. The tenants describe Scappoose airport as a unique asset that can draw additional manufacturing tenants from larger urban areas.

A third trend is that Scappoose Airport is growing when many small airports are not. Small airports around the nation often are unable to generate sufficient business volume to properly maintain their facilities and be economically viable. Scappoose airport is improving the runway landing capabilities, developing manufacturing space for new employers, and building hangars that immediately fill with customers. The airport management team is doing an excellent job of maximizing the economic resources of the airport.

## Airport Growth

Scappoose airport has experienced strong growth in recent years and this is demonstrated by two key indicators.



Source: 1986-1994 and projected 1998, Scappoose Industrial Airpark Airport Layout Plan, December, 1994. 1995-1996, Port of St. Helens.

The growth in the number of aircraft based at Scappoose airport is directly related to the number of hangar spaces available. The number of based aircraft has grown in step with hangar construction which began in 1988. With 135 based aircraft as of June 30, 1996, actual growth is far exceeding projections made only two years ago. The 1996 actual volume is only one plane short of



The high level of airport activity at Scappoose places it among the top seven airports in Oregon without an FAA tower. In a May, 1996 report by the Oregon Department of Transportation, Scappoose airport has a comparable number of aircraft operations as Bend, North Bend, McMinnville, Creswell, and Astoria airports.

Scappoose airport is representative of successful small general aviation airports in Oregon and nationally.

### Community investment in airport

The community has attracted and invested considerable amounts of money in the airport. The funding sources range from Federal Aviation Administration (FAA) grants to cooperative local and state government efforts planned to extend water and sewer lines to include the airport.

For illustration purposes, the following table shows airport investments made in recent years.

**Airport Improvements: 1985-1996**

<u>Year</u>	<u>Improvement</u>	<u>Cost (\$)</u>
1985	Access road, Tie-down area	350,678
1985	Parallel taxiway, VASI, fencing	253,000
1986	Runway paving, hangar taxi-lanes	259,670
1989	Land acquisition, master plan update	324,139
1990	Three 10-unit hangar buildings	295,207
1991	Two 10-unit hangar buildings	231,585
1993	Design taxiways, lighting, fencing	241,480
1993	Taxiways, access roads, beacons	438,679
1993	One 10-unit hangar building	146,277
1994	Two 12,000 sq. foot industrial buildings	674,878
1996	Two 10-unit hangar buildings	339,956
1996	Land acquisition	189,000
<b>Total:</b>		<b>\$ 3,744,549</b>

Source: Port of St. Helens, Gene Leverton & Assoc.

The strong history of investments demonstrates a belief in the value of the airport as an economic resource.



## **Economic contribution of airport**

Hangar rentals and light manufacturing tenants are the key market segments. The airport operator and tenants were interviewed to identify their economic interaction with the surrounding community. The highlights of these interviews are summarized here.

### **Hangar rental**

Of the 100 hangars rented, about 40% of the tenants are from the Scappoose area, with the balance from outside Columbia County.

### **Light Manufacturing**

There are four light manufacturing tenants and one fixed base operator (FBO) who sells fuel and maintains aircraft.

#### AkroTech Aviation Inc.

AkroTech is a manufacturer of kit airplanes that relocated from Troutdale airport in October 1995. The company is currently shipping about 2 kits per month, and plans to be shipping 3 per month by August. The company employs 11 full-time equivalents, and plans to expand their employee base by one person per month over the next year or two. The business development and production goals are to reach a base of about 45 employees.

Part of the increase in the number of employees is predicated on FAA certification of a standard production aircraft. Currently the aircraft produced by AkroTech are sold as a semi-assembled airplane, with AkroTech completing as much as 50% of the assembly. AkroTech has applied for FAA certification on a completely assembled, ready-to-fly version of this same plane. This certification process will result in a 'standard category' aircraft, and is the same type of process used by aircraft manufacturers such as Piper and Cessna. This is expected to be a three year process that will substantially increase the market potential. Upon gaining certification, the company will require an airport manufacturing site, providing employment for an additional 100 people.

Average wages are currently about \$10 per hour, plus benefits. Future jobs are expected to be in this range as well. Annual payroll is about \$240,000.

About \$2,000 per month is spent with local suppliers, with an additional \$15,000 in the Portland area. The company would like to shift more of the work currently provided in other areas to Scappoose-area suppliers. The services needed are painting, sheet metal and machine work. As the company's needs become more established, local suppliers will very likely play a larger role.

The beauty of the surroundings were given as key factors in choosing the Scappoose Airport. Existing gravel truck traffic is perceived as a negative and as the company grows it will watch the concurrent growth of any of the aggregate mining activity. The owner mentioned that before choosing Scappoose they were recruited by Pendleton and Redmond. A primary reason for dropping Pendleton was the run-down character of the airport's



### Oregon Aero

The company manufactures aircraft seats and accessories using laminated foams with fabric coverings. They moved from a non-airport site in Aloha about two years ago when they outgrew the facility. A secondary motivation was finding an airport location. Their clients are a mix of commercial customers and U.S. military agencies. An airport location creates a good image and contributes to their development plans. They have applied for FAA certification as a Repair Station to further diversify their activities.

Oregon Aero employs 10 full-time and 2 part-time people at the site. Annual payroll is about \$286,000, plus benefits, with average pay of about \$10 per hour. Two of the five outside vendors doing contract sewing work for the firm are located in the Scappoose area. Payments to these two local vendors total approximately \$30,000-\$40,000 per year. The company intends to transfer more of the sewing work to local vendors as they find qualified people. Most supplies used, such as foams and fabrics, are from outside the state.

The beautiful setting of Scappoose Airpark was mentioned as a key factor in their relocating to this site. The proposed creation of a gravel pit nearby is disturbing. They perceive a gravel pit as a negative for their business image and general appreciation of the area.

### Transwestern Aviation

This fixed base operator (FBO) for the airport provides aircraft maintenance, fueling, and routine maintenance of the airport. There are 7 full-time and 3 part-time employees. Including contract labor, the annual payroll is about \$200,000. In addition, Transwestern buys about \$48,000 in supplies and services in the Scappoose/St. Helens area each year.

Transwestern is a unique and very civic-minded company. They have played a leading role in sparking growth at this airport. Substantial time, energy and money is allocated to actively recruit business and investment to upgrade Scappoose airport. The company is keenly aware of the strong potential of this airport for its contributions to the local economic base. The dynamic growth of the airport since 1990 speaks highly of their efforts.

### **Organizations**

The Northwest Antique Airplane Club has an auxiliary clubhouse at Scappoose airport. This 37-year old social club with about 300 members is based at Evergreen Field in Vancouver, Washington. Because of the uncertainty over the continued long-term existence of Evergreen Field, the club chose Scappoose as an auxiliary site about 7 years ago. About 70% of club members are from the Portland - Vancouver metro areas, with the remaining 30% representing Columbia County and other outlying areas.



Many competitive advantages are working in the Port of St. Helens favor as they promote Scappoose Industrial Airpark:

- stable, compatible tenants
- an open country setting
- available land to expand
- an airport outside the metro air traffic patterns-yet close to Portland
- experience and successful momentum building hangars and meeting the special needs of industrial companies and new tenants
- committed management

One example of the potential for Airpark growth includes on-going discussions with Sherpa Aircraft, a maker of specialty cargo aircraft. The company currently has two prototypes being evaluated by the FAA. The company has signed a letter of intent with the Port of St. Helens to lease 9,000 square feet of hangar space at the airport for research and development. Upon certification by the FAA, a manufacturing facility would also be constructed employing up to 150 people. The location of the manufacturing facility is Scappoose Industrial Airpark.

AkroTech, an existing tenant, plans to expand by certifying a new plane within a few years. Employment is anticipated to reach 100. The expansion could be at Scappoose, but visual appearance of the surrounding area will be a key determinant. The company president has emphasized the value of being able to invite potential customers to test the airplane in Scappoose. The beauty of the area helps make the sale, and the proposed gravel pit has been specifically mentioned as a potential obstacle to any further expansion in Scappoose.

An avionics company is seriously considering relocation to the Scappoose airport. The company employs 10 people, who earn \$11-\$12 per hour, on average, plus benefits. The firm is now located at a busy urban airport. The company owner thinks the combination of Scappoose airport's good facility, open terrain, room for expansion, and rural setting would be a competitive strength for the company.

Parcel delivery firms, such as FedEx and UPS, may use Scappoose airport in the long term. There is, for example, the possibility for limited service aimed at the new market segment of same-day, or next-flight-out service. The target market would be high tech firms located in Washington County who often have trouble reaching Portland International flights in the late afternoon due to traffic congestion.

A local developer characterizes the 400 acre site east of the airport as the best site in south Columbia County for future light manufacturing. The land is flat, has good drainage, no vibration from rail traffic, and is close to Highway 30. The site seems as though it could best serve the community by providing employment for the skilled workforce now commuting outside the county.



The airport creates 65 jobs with an annual payroll of more than \$1.2 million. Most of this money stays in the community because about 90% of the airport employees live in Columbia County. The money goes toward purchasing homes, retail merchandise and services, and paying local taxes.

Airport businesses also buy materials and services locally. The airport tenants spend approximately \$165,000 per year on local purchases of shop supplies, professional services, sub-contracted manufacturing, and contract labor. This is an important source of revenue to many businesses in the community. Because these expenditures are so diverse there is a very strong ripple effect from these economic activities.

**Summary of Scappoose Airport's Economic Benefits (\$/year)**

<u>Source</u>	<u>to Airport Operator</u>	<u>to Community</u>	<u>Total Impact</u>
Hangar tenants, tiedown	153,740	-	
Light manufacturing/FBO	94,296	1,238,000	
other	<u>15,819</u>	<u>165,000</u>	
<b>Total:</b>	<b>\$263,855</b>	<b>\$1,403,000</b>	<b>\$1,666,855</b>

Source: Gene Leverton & Assoc.

Nearly all of the \$1.7 million impact on the economy stays in Columbia County in the form of jobs and purchases. Because 90% of the airport jobs are held by Columbia County residents most purchases circulate in the local economy. This is a significant economic impact that does not include any multiplier effects.

This is a conservative estimate of the airport's economic contribution. Excluded, for example, are the purchases made in the local community by pilots, out-of-town customers, and aviation club members. The new car rental firm that has been in St. Helens only a few months has already rented to airport customers 5 or 6 times.

The \$1.7 million contributed annually by the airport is a steady revenue source with very strong growth potential. The airport is building upon the community's strengths and preserving the character of the local area at the same time.



### **Compatibility - aggregate and airport**

Airport tenants are very apprehensive about aggregate production close to the airport. The existing gravel pit operations by Lone Star are tolerable, but the proposed activity is much closer, and the expectation is that it will increase existing dust problems. Further concerns are noise, truck traffic, and destruction of a peaceful setting which was important in getting them to relocate to the airport. Pilots are concerned about glare off the water.

Certain prospective airport tenants are quite sensitive to dust, and would relocate to avoid it. Plastic injection molding, and precision manufacturing, for example, are often incompatible with dusty environments. These types of tenants are also excellent prospects for the airport, so there is a high likelihood of incompatibility with a new gravel pit and associated dust.

The likelihood of incompatibility between a gravel pit and residential or commercial activities has a precedent in Columbia County. The issue arose when assessed property values were re-evaluated near the existing Lone Star gravel pit. Assessed values had been raised on land near the pit since 1989 at the same rate as similar agricultural land in the county.

In 1995, the Columbia County Assessor's Office reduced the assessed value of properties surrounding the existing Lone Star gravel pit. The conclusion of a staff report was that because of the mining activity increases in land and improvement value should have risen only one-quarter of the rate found in otherwise comparable areas away from the pit.

The Assessor's Office gave the following reasons for reducing the assessed values.

- Noise

Although residents had been told mining would be stopped by 10:00 p.m. every evening, it normally continues until 2:00 or 3:00 a.m. The noise associated with the mining becomes excessively loud at night.

- Dust

Because of the mining a noticeable layer of dust accumulates in less than a day at nearby residences and businesses.

- Heavy truck traffic

Honeyman Road carries all truck traffic in and out of the pits. Competing with these heavy trucks on a narrow road raises extremely significant safety issues.

Interviews with existing airport tenants echo these same concerns. Because of the large, heavy gravel trucks there are concerns about loose rocks falling off passing trucks and walking along the road is too dangerous. The four new



### Property tax

In 1995 the Columbia County Tax Office collected about \$69,000 from Lone Star in property taxes. This amount was collected from two related entities: Oregon City Leasing and Lone Star Northwest.

For perspective, selected 1995 property tax payments made by other local businesses are shown here.

<u>Selected Accounts</u>	<u>Columbia County 1995 Property Taxes</u>
Portland General Electric	\$3,322,715
Boise Cascade	2,118,724
Armstrong World Industries	564,303
Northwest Natural Gas	310,014
Longview Fibre	151,944
<b>Lone Star</b>	<b>69,141</b>
Hi-School Pharmacy	35,925

Source: Columbia County Assessor's Office

The issue for the public is whether they are willing to forego future opportunities with prime industrial lands in favor of a gravel pit and the associated truck traffic.

### **Jobs and Income Produced by Lone Star**

The Lone Star company has said they employ 50 people in Scappoose. Lone Star also estimates that about 60% of these employees live in Columbia County. The other 40% live outside the county.

This means that in evaluating the economic significance of Lone Star's activity, much of their projected payroll will circulate outside of the Columbia County economy.

### **Federal Aviation Administration (FAA)**

The FAA typically contributes 90% to the cost of airport improvements, making them an important airport partner. FAA approved expenditures include land acquisition to create buffer zones and airport expansion, improvements to the runway, and navigation aids. Over the past 10 years, the FAA has been a major partner in nearly \$2 million of Scappoose airport improvements.

FAA approval for funding rests in part on the perceived need of each airport and whether the airport has the potential of playing a significant role in local economic development. Obtaining grant money is a competitive process. The



## Companies and Individuals Interviewed

Columbia County	Joel Yarbor, Commissioner Carol Smith, Commissioner Glenn Higgins, Chief Planner Tom Linhares, Assessor Paul Downey, Finance Officer Dave Hill, Roadmaster John Knight, County Counsel
City of Scappoose	Don Otterman, City Manager Lisa Smith Ben Shaw, Director, Public Works
Port of Portland	Ann Eike, Sr. Economist John Newell, Mgr. General Aviation
Operating Engineers, Local 701	Bob Hall
Sport Copter	Jim Vanek
Oregon Aero	De Cate
Composites Unlimited	Steve Ruege
AkroTech Aviation	Richard Giles Alicia Steve Hill
Transwestern Aviation	John Helm Bruce Hugo
N.W. Antique Airplane Club	Dixie London
Bowen Aero Club	Len Bowen Ed DeMott
Port of St. Helens	Shirley Parsons
Federal Aviation Administration (FAA)	Don Larson
Lonestar	Paulette Kuiper, Office Manager, Scappoose Tommy LaLonde, Portland office
Sherpa	Glen Gordon
Developer	Len Wagner
United Parcel Service (UPS)	Ron Correnti
Barnstomer Bed & Breakfast	Chris Cave
Scappoose Drainage District	Wally Wodesky, Chairman
U.S. Dept. of Agriculture, Natural Resource Conservation Service	Bill Eagle, Resource Conservationist
Gadotti Farms	Marie Gadotti
Enterprise Rent-a-Car	Scott Nichols

**Selected consulting projects  
completed by Gene Leverton and Associates**

<u>Project</u>	<u>Client</u>
Portland air cargo market assessment	Port of Portland
Non-containerized marine cargo market study	Port of Portland and Port of Vancouver
Export wood pulp market study	Port of Portland
2040 Commodity flow study	Port of Portland and METRO
Freight and goods movement sections of Willamette Valley Corridor study and IMS.	Oregon Dept. Transport.
Market demand for retail space at a marina	Port of Brookings
Importance of airport location for A&P mechanic training school	Portland Development Commission
Evaluate demand for equipment used with heavy duty truck trailers	private investors
Market demand study of precision approach systems for U.S. airports and helipads	Advanced Navigation
Japanese demand for precision approaches	Advanced Navigation
Commercial air service feasibility study	Baker City, Oregon
Commercial air service analysis	Newport, Oregon
Cost/benefit study of commercial air service	Port of Olympia
Market development strategy for Olympia airport	Port of Olympia
Canadian liquid bulk market study	Port of Portland
Heavy equipment dealership feasibility	private investors
Market feasibility of digital radiography	private investors
Bulk mineral export potential	Port of Portland
Evaluate high tech firms in Oregon	Mitsubishi





**CITY OF SCAPPOOSE  
SUPPLEMENTAL STAFF REPORT  
OCTOBER 15, 1997**

**Application:** Adopt the Scappoose Transportation System Plan and related amendments to the Scappoose Comprehensive Plan

**Applicant:** City of Scappoose  
P.O. Box P  
Scappoose, Oregon 97056

**Public**

**Hearings:** Scappoose Planning Commission on September 25, 1997 continued to October 9, 1997  
Scappoose City Council on October 20, 1997

**FINDINGS OF FACT**

**History and Citizen Participation:**

At the September 25, 1997 Planning Commission Meeting, 37 community members signed in and many presented testimony to the Planning Commission including the following:

Mr. Kent Barnes, 52130 SW Eggleston Lane, expressed his concerns regarding a small residential street becoming a thoroughfare for trucks. He referred to project # 43 and 44 , and stated he was opposed to widening Eggleston Lane from EM Watts and/or constructing Eggleston Lane to JP West.

Mr. Robert Wines, 52181 SW Eggleston Lane, stated that everyone who lived on Eggleston was concerned and wanted certainties in the plan. He was opposed to any development on the road and wanted his quiet neighborhood to remain that way. He asked that the Planning Commission make a decision before the meeting was over to assure the citizens who lived on Eggleston Lane to know that no street improvement would be done. Ms. Smith explained that the hearing this evening would continue on Thursday, October 9<sup>th</sup>; however, the City Council, not the Planning Commission, was the deciding body, and that Council would be holding a public hearing on October 20<sup>th</sup>.

Ms. Kay Fail, 52101 SW Eggleston Lane, stated that she believed, whether or not staff agreed, that once a plan had been adopted by the City Council, the citizens were not able to change it, therefore, the document was not a guideline. She referred to the map, pointing out projects #43 and #44, which she believed was basically a 'by-pass' through the west hills. She stated

that years ago, ODOT determined that this would not work because of air pollution from vehicles being trapped against the hillsides.

Ms. Mary Mosier, 52235 SW Eggleston Lane, stated her home was located at the end of the street, referring to project #43. She also referred to projects #44 and 45, and was opposed to any development in the ravine due to drainage problems, and to any construction or development in the flood plain.

Mr. Rick Weber, 33936 SE Seven Oaks Drive, discussed SE Sixth Street and the widening of High School Way, and he supported any improvement of High School Way that included sidewalks.

Mr. Darril Clark, 51995 SW Bonnie Lane, expressed his concern regarding the impacts on homes and the unanswered questions regarding wetland and steep slope issues on Eggleston Lane. He stated that the developers needed to know this plan before they began construction.

Mr. Hubert Stegman, 52432 Bird Road, stated Bird Road was a dead end street with limited traffic, and referred to project #69, and explained that the directly across the road there was a house, and would that house have to be removed. He expressed his concern with the City constructing a 'by-pass'.

Mr. Tim Johns, Columbia Homes, Inc., stated he had a million dollars worth of real estate to sell on SE 9<sup>th</sup> Street, and he referred to projects #69, 70 and 7. He asked how he was supposed to sell his property to perspective buyers if there were parking and driveway conflicts because of a document that no one knew about. He stated SE 9<sup>th</sup> was supposed to be a quiet small residential street, not a major collector.

Mr. Mark Mansk, 51807 SE 7<sup>th</sup> Street, expressed his concern regarding additional traffic and striping of 2 12' narrow lanes with a 7' parking lane on SE 9<sup>th</sup> Street, when there were lots of children in the neighborhood. He was opposed to project #70, construct Bird Road from High School Way extension to Highway 30; however, he supported project #8, adding sidewalks and strip bike lanes on High School Way.

Mr. Peter Anderson, Bird Road, stated the reason he bought his home on Bird Road was because it was a dead end. He explained that due to Bird Road being straight, people drove too fast and if Bird Road were to be constructed, project #69 and #70, the road would become a 'drag strip'. He was opposed to those projects.

Mr. Len Waggoner, 33951 SE Oak Grove Drive, referred to new street construction, and asked staff if the 200' wide corridor would be protected; and, suggested prioritizing funding for the projects. Ms. Smith explained the protection of the 200' wide corridor, and referred to page #91 of the draft, and summarized potential funding for the Transportation System Plan. Mr.



Waggoner expressed his concern on the funding of these project and how the impact would affect tax payers and development.

Mr. Donald Salvey, 51525 Bird Road, stated he was not in the City limits, did not want to be in the City limits. was opposed to projects #61, 62, and 68. the extension of Bird Road into a major collector street. He also requested that map #14 be corrected by deleting the lines on Bird Road going to the west because it was his driveway. Commissioner Kuhlman asked Mr. Salvey if he was opposed to the whole Transportation System Plan. Mr. Salvey stated he was just opposed to the projects on Bird Road.

Mr. George Meisner, 52715 NW First Street, referred to project #57, and asked if a portion of that project was currently being constructed. He stated that map #14 shows the project going through his property, and suggested modifying that project and use NW Laurel. Mr. Shaw stated there was a conflict, and he explained the Meersburg development and a possible signal light. Mr. Meisner also expressed his concern about the impacts on the extension of Williams Street on the west side, and suggested the a signal be placed at Laurel Street rather than Williams. Mr. Shaw addressed the railroad and fire signal.

Ms. Linda Siders, 33975 SE Seven Oaks Drive, reiterated the comments made previously regarding SE 9<sup>th</sup> Street, and expressed her concern regarding the traffic impacts, and the safety of small children in a small residential area.

Mr. Rick Gilstrap, 52447 Bird Road, referred to project # 68, widen Bird Road from Columbia Avenue to Forest Road ( Crown Zellerbach Road), and stated that #68 could not extend to project #69 due to a house sitting across Columbia Avenue from Bird Road. He believed Miller Road would be more appropriate to widen because there was more traffic and right-of-way would be less affected.

Ms. Julie Thronton, E. Columbia Avenue, stated she lived directly across from Bird Road, and this extension appeared to go through her house.suggested

Mr. Jim Emery, 52519 Bird Road, reiterated comments opposed to Bird Road.

Ms. Betty Karstens, 32893 NW Peak Road, discussed SE 6<sup>th</sup> Street and Havlik Drive, and referred to a 1994 dedication of right-of-way from Springlake Park.

Mr. Russell Olney, 51904 SE 6<sup>th</sup> Street, referred to projects #69 and 71 stating those projects went through on his property; and that SE 6<sup>th</sup> Street should be a collector street not SE 9<sup>th</sup>.

Ms. Marie Emery, 52519 Bird Road, stated that to the north of Forest Road there was a ravine, and to the south were houses, and she wanted to know who would pay for the road maintenance; and, that parking should be made available to those who want to ride their bicycles in that area.

Ms. Mary Mosier, stated the projects #5, 6, and part of 7, 8 and 22, sidewalks and curbs would be very beneficial because of juvenile pedestrians.

Mr. Fred Bernet, 51364 Dike Road, expressed his concern about SE 9<sup>th</sup> Street stating it was too narrow to be a collector street, there were no cross streets to the east, to the east the property could not be developed due to wetlands; and opposed to extending SE 9<sup>th</sup> Street north due to safety; and, suggested SE 6<sup>th</sup> Street to Vine Street.

**Discussion:** Planning and Public Works Staff reviewed the conflicts previously identified for the proposed Eggleston Lane extension and the 9<sup>th</sup> Street/Bird Road connection. Options for maintaining connectivity while addressing community and geographic concerns were discussed with Manish Babla of David Evans & Associates. Following those discussions, staff presented an amended recommendation to the Planning Commission at the October 9, 1997 meeting.

**1a. Consider all modes of transportation including mass transit, air, water, pipeline, rail, highway, bicycle and pedestrian**

As proposed, the draft TSP discusses mass transit, air, water, pipeline, rail, highway, bicycle and pedestrian traffic. The document contains an inventory of the local street, bicycle and pedestrian facilities. The draft TSP does not fully discuss the use of air transportation, but refers the user to the Scappoose Airpark Master Plan. The current Scappoose Comprehensive Plan includes findings from the 1975-76 Airpark Master Plan as well as goals and policies in support of airport development. Those goals and policies are fully discussed in the West Lane Zone Change Staff Report dated June 19, 1997 attached hereto and incorporated into this staff report.

Staff recommends that Paragraph 6 of Page 76 of the draft Transportation Plan be amended to read as follows: " The Scappoose Industrial Airpark is governed by the 1991 Scappoose Industrial Airpark Master Plan and subsequent updates included as Appendix E attached hereto and incorporated herein."

Conclusion: Based on the above findings and approval of the recommend amendment, the draft TSP satisfies this criteria.

**2g. To cooperate closely with the County and State on transportation matters.**

On October 3, 1997, the City received a fax from Eric Jacobson with the Department of Land Conservation and Development. He recommended that the City address certain items prior to adoption of the Transportation System Plan with regards to street connectivity and narrow local street standards. Following conversations with the Public Works Director, Planning staff spoke with Mr. Jacobson on October 8, 1997. The main concern of the DLCD is the proposal to increase paving width on local streets from the current width of 32' to 36'. Previously, when a community has included paving standards greater than 32' in width for

local streets in the Transportation System Plan, the DLCD has filed a notice of intent to appeal. Staff sent a fax to Mr. Jacobson along with several attachments from the Scappoose Municipal Code that addressed street connectivity, length of blocks and cul de sacs.

On October 9, 1997, Mr. Jacobson sent a second fax to the City stating that the information previously received addressed DLCD concerns regarding cul de sac lengths and partially addressed the street connectivity and block lengths issue. He suggested addition of the following language to Scappoose Municipal Code 17.154.040:

“The length, width, and shape of blocks shall be designed with regard to providing adequate building sites for the use contemplated, consideration of needs for safe and convenient pedestrian and vehicular access and circulation and recognition of limitations and opportunities of topography.

No block face shall be more than 600 feet in length between street corner lines and no block perimeter formed by the intersection of pedestrian accessways and local, collector and arterial streets shall be more than 1600 feet in length.

Exemptions from this requirement may be allowed, upon approval by the Planner and the Public Works Director, for the following two conditions:

- a. Where topography and/or other natural conditions, such as wetlands or stream corridors, preclude a local street connection consistent with the stated block length standards. When such conditions exist, a pedestrian accessway shall be required in lieu of a public street connection if the accessway is necessary to provide safe, direct, and convenient circulation and access to nearby destinations such as schools, parks, stores, etc.
- b. Where access management standards along an arterial street preclude a full local street connection. The recommended minimum block along an arterial is 1,800 feet which conflicts with the street connectivity requirements. Where such conditions exist, and in order to provide for adequate connectivity and respect the needs for access management, the approval authority shall require either a right-in/right-out public street connection or public accessway connection to the arterial in lieu of a full public street connection. Where a right-in/right-out street connection is provided, turning movements shall be defined and limited by raised medians to preclude inappropriate turning movements.”

In their October 9, 1997 recommendation, the Planning Commission supported adding the above language.

With regards to the recommendation by DLCD to continue the current 32' paving width for local streets rather than increasing the paving width to 36' feet as

voted 4 to 3 to recommend the paving width be increased. Commissioner Dackin, Kuhlman, Burmond and Mills supported the increased width for the comfort of the driver, mobility of local traffic and additional maneuvering room for drivers if a person runs out from between parked cars. Commissioners Aplet, Ruddell and Frenz supported the current 32' wide standard stating that it was adequate to allow parking on both sides but still provide access for emergency vehicles, but avoids unnecessary costs being added to the price of homes and was consistent with the guidelines of the State of Oregon so the City would not have potential additional expenditures due to a LUBA appeal by DLCD.

Conclusion: Based on the above findings, the addition of Scappoose Municipal Code 17.140.040 and continuing the current street standards, the draft TSP satisfies this criteria.

c. **Develop a system of pedestrian paths and bikeway encouraging their construction.**

The draft TSP identifies bike lanes as a component in street construction and includes an inventory of existing pedestrian and bicycle facilities. Recommended street standards include both sidewalks and bike lanes. A project is included in the draft TSP for construction of a dedicated pedestrian/bicycle facility adjacent to Scappoose Creek. This facility will provide walkers and bicyclists with an alternative to Highway 30 extending from Dutch Canyon Road to Scappoose Vernonia Highway.

Conclusion: Based on the above findings, the draft TSP satisfies this criteria.

**RECOMMENDED ACTION:**

1. Based on the findings contained in the staff report dated September 17, 1997 including Exhibits A through E, the testimony at Public Hearings on September 25 and October 9, the Planning Commission recommendation and the findings in the supplemental staff report dated October 15, 1997, staff recommends that the Scappoose City Council adopt the following amendments to the Scappoose Comprehensive Plan:

**Amend Transportation Policy 1 to read:** Require all streets and highways to be of proper width, alignment, design and construction and to insure that they are in conformance with the Scappoose Municipal Code.

**Amend Transportation Policy 7 to read:** Adopt and comprehensively implement the Scappoose Transportation System Plan and improve the local circulation network by requiring recommended road improvements at the time of approval of each development application.

**Amend Transportation Policy 8 to read:** Regulate or prevent development within areas which will be needed for future collector streets or for widening rights of way.

**Repeal Transportation Policy 15.**

2. Based on the findings contained in the staff report dated September 17, 1997 including Exhibits A through E, the testimony at Public Hearings on September 25 and October 9, the Planning Commission recommendation and the findings in the supplemental staff report dated October 15, 1997, staff recommends that the Scappoose City Council adopt the Scappoose Transportation System amended as follows:
- a. Paragraph 6 of Page 76 of the Transportation System Plan shall be amended to read: The Scappoose Industrial Airpark is governed by the 1991 Scappoose Industrial Airpark Master Plan and subsequent updates included as Appendix E attached hereto and incorporated herein.
  - b. The Transportation System Plan street standards discussion and diagrams shall be amended as follows:  
  

**Local Streets:** 54' right of way including two 5' sidewalks, **32' feet of paving** and two 4' boundary lawns for required street trees.

**Minor Collector Streets:** 60' right of way including two 6' sidewalks, two 14' shared travel lanes for automobiles and bicycles, one 8' parking lane, and two 6' boundary lawns for required street trees

**Major Collector Streets:** 66' right of way for major collector streets with two 6' sidewalks, two 6' bicycle lanes, two 12' travel lanes, and two 6' boundary lawns for required street trees. This right of way allows for turn lanes at intersections or parking on one side.
  - c. All TSP maps shall be amended to be consistent with one another.
  - d. The list of projects and future project map shall be located adjacent to each other in the final document.
  - e. The map title on Figure 14 shall be amended to read "Transportation Systems Projects".
  - f. The first paragraph of the draft TSP shall be removed in its entirety.
  - g. The list of major transportation facilities of significance in Scappoose on Page 4 shall

be amended to include the Scappoose Industrial Air Park.

- h. On Page 97 of the draft TSP, remove the phrase "or the project will not be built".
  - i. The final document shall include a copy of the Comprehensive Plan Map and Zoning Map as Appendix B.
  - j. Page 42 of the draft TSP shall be amended to the current standard of a maximum of 400' length for cul-de-sacs.
  - k. Page 46 of the draft TSP, Access Management Guidelines, shall be modified to reflect Scappoose. Change shall include Major Collector Streets rather than Secondary Arterials, amending minimum spacing between intersections for local residential streets to more closely reflect the existing 200 foot grid system, removing references to higher density residential on major arterials, and indicating low to medium density for minor collector streets per existing land use patterns.
  - l. The TSP maps that indicate street projects shall be amended by adding the following notation: "For all new street construction, the undeveloped streets shown on this map represent a 200' wide corridor. Final engineering design shall determine the final location of the required street within the corridor.
  - m. Redefine Project 23 through 26 to create village style commercial development.
  - n. Delete Projects 43, 44, 49 and 50.
  - o. Relocate Project 47 to Old Wheeler Street
  - p. Delete projects 68 and 70.
  - q. Redefine Project 71 to the extend Sixth Street east to 10<sup>th</sup> Street at the curve north of Vine.
  - r. Use Laurel instead of Williams to extend 4<sup>th</sup> Street to West First Street
  - s. Amend Project 69 to indicate connection with Columbia Avenue between Bird Road and Miller Road as 10<sup>th</sup> Street.
3. Based on the adoption of the recommended amendments to the Comprehensive Plan and the adoption of the amended Scappoose Transportation System Plan, staff recommends the City Council approval the following amendments to the Scappoose Municipal Code
- a. 13.28, Public Works Design Standards, Section 6, shall be amended as follows:

**Local Streets:** 54' right of way including two 5' sidewalks, 32' of paving and two 4' boundary lawns for required street trees.

**Minor Collector Streets:** 60' right of way including two 6' sidewalks, two 14' shared travel lanes for automobiles and bicycles, one 8' parking lane, and two 6' boundary lawns for required street trees

**Major Collector Streets:** 66' right of way for major collector streets with two 6' sidewalks, two 6' bicycle lanes, two 12' travel lanes, and two 6' boundary lawns for required street trees. This right of way allows for turn lanes at intersections or parking on one side.

- b. 17.154.020 (C) shall be added and shall read as follows:

“Subject to approval of the Planner and the Public Works Director, street sections may be modified administratively based on geographical constraints of steep slopes, wetlands, flood plains, and constraints imposed by existing structures. Modifications may include, but are not limited to, reduced paving widths, elimination of on street parking and eliminating sidewalks on one side of the street.”

- c. 17.154.030 (D)(3) shall be added and shall read as follows:

“New streets shall be laid out to provide reasonably direct and convenient routes for walking and cycling within neighborhoods and accessing adjacent development”.

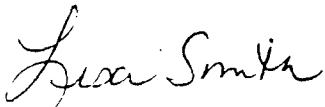
- d. Scappoose Municipal Code 17.154.040 shall read:

- A. “The length, width, and shape of blocks shall be designed with regard to providing adequate building sites for the use contemplated, consideration of needs for safe and convenient pedestrian and vehicular access and circulation and recognition of limitations and opportunities of topography.
- B. Except for arterial streets, no block face shall be more than 600 feet in length between street corner lines and no block perimeter formed by the intersection of pedestrian accessways and local, collector and arterial streets shall be more than 1600 feet in length. The recommended minimum length of blocks along an arterial street is one thousand eight hundred feet. A block shall have sufficient width to provide for two tiers of building sites. Reverse frontage on arterial streets may be required by the Planning Commission.
- C. Exemptions from requirement of 17.154.040 (B) may be allowed, upon

approval by the Planner and the Public Works Director. for the following two conditions:

1. Where topography and/or other natural conditions, such as wetlands or stream corridors, preclude a local street connection consistent with the stated block length standards. When such conditions exist, a pedestrian accessway shall be required in lieu of a public street connection if the accessway is necessary to provide safe, direct, and convenient circulation and access to nearby destinations such as schools, parks, stores, etc.
  
2. Where access management standards along an arterial street preclude a full local street connection. The recommended minimum block along an arterial is 1,800 feet which conflicts with the street connectivity requirements. Where such conditions exist, and in order to provide for adequate connectivity and respect the needs for access management, the approval authority shall require either a right-in/right-out public street connection or public accessway connection to the arterial in lieu of a full public street connection. Where a right-in/right-out street connection is provided, turning movements shall be defined and limited by raised medians to preclude inappropriate turning movements.

Respectfully submitted,



E. L. Smith  
Assistant Planner

Attachments



# Attachment To Supplemental Staff Report

**CITY OF SCAPPOOSE**  
**STAFF REPORT**  
**JUNE 19, 1997**

**APPLICATION:** Zone Change for property located on West Lane including the Scappoose Industrial Airpark

**APPLICANT:** City of Scappoose  
P.O. Box P  
Scappoose, OR 97056

Port of St. Helens  
P.O. Box 598  
St. Helens, OR 97051

**OWNERS:** Port of St. Helens  
P.O. Box 598  
St. Helens, OR 97051

Martha Molony  
29348 Scappoose Vernonia Highway  
Scappoose, OR 97056

Rick and Cynthia Icenogle  
52596 West Lane Road  
Scappoose, OR 97056

Randy Icenogle  
33841 NE Blossom Drive  
Scappoose, OR 97056

Ronald and Elizabeth Diess  
33901 NE Blossom Drive  
Scappoose, OR 97056

June Helen Long Trust  
33855 NE Blossom Drive  
Scappoose, OR 97056

Lloyd and Helen Smith  
33871 NE Blossom Drive  
Scappoose, OR 97056

Cloud Leaf Investments  
C/O Dave Molony  
55363 West Lane Road  
Scappoose, OR 97056

Columbia County  
County Courthouse  
St. Helens, OR 97051

John Helm  
53894 Airport Road  
Scappoose, OR 97056

**SUBJECT  
PROPERTY:**

Columbia County Assessor Map 3-1-6  
Lot 300                      100.85 acres  
Lot 502                      3.99 acres  
Lot 503                      6.00 acres  
Lot 600                      5.40 acres

Columbia County Assessor Map 3-2-1-1  
Lot 2002                      6.12 acres

Columbia County Assessor Map 3-2-12-1-4  
Lot 3100                      2.39 acres  
Lot 2900                      .13 acres  
Lot 3000                      .17 acres  
Lot 2500                      .19 acres  
Lot 2800                      1.70 acres  
Lot 2600                      .15 acres  
Lot 2700                      .15 acres  
Lot 2400                      2.39 acres  
Lot 2302                      .90 acres  
Lot 2301                      .90 acres  
Lot 2300                      .90 acres

Columbia County Assessor Map 3-1-6-2  
Lot 800                      23.39 acres  
Lot 1100                      3.27 acres  
Lot 1104                      .11 acres  
Lot 1106                      6.00 acres  
Lot 1200                      13.43 acres

Columbia County Assessor Map 3-1-7  
Lot 101                      14.71 acres

The territory proposed for annexation includes the abutting right of way along West Lane Road.

## **PUBLIC**

**HEARINGS:** Preliminary Annexation Hearing at the June 16, 1997 City Council Meeting  
Zone Change Hearing at the June 26, 1997 Planning Commission Meeting  
Final Annexation Hearing at the July 7, 1997 City Council Meeting

## **FINDINGS OF FACT**

**Ownership:** The annexation as proposed represents 14 property owners.

**Assessed Value and Acreage:** The total territory proposed for annexation is valued by the County Assessor's office at \$2,715,310.00. No values are indicated for Lots 503 and 600 of Map 3-1-6; Lots 1104 and 1200 of Map 3-1-6-2 and Lot 101 of Map 3-1-7. Taxable properties are assessed at \$1,273,510. The total territory contains 193.24 acres.

**Plan Designation:** The Scappoose Comprehensive Plan designated the territory north of the former Crown Zellerbach right of way as Industrial. Property to the south of the former Crown Zellerbach right of way is designated Mobile Home.

**Zone Designation:** The existing County zoning is primarily airport industrial and mobile home residential. A portion of Tax Lot 600, Map 3-1-6 is M-2 (light Industrial); Tax Lot 502, Map 3-1-6 is Rural Residential; and Tax Lot 1100, Map 3-1-6-2 is CS-R, Community Service-Recreation.

**Topography and natural hazards:** The entire territory is relatively flat with only moderate changes in elevation occurring randomly. According to the Flood Insurance (FIRM) Map, 41009C0463 C, the entire territory proposed for annexation has been determined to be outside the 500 year flood plain. The Columbia County Soil Survey indicates the entire territory contains Sifton Loam soil types. No slope hazards have been determined to exist. The National Wetlands Inventory Map does not indicate the presence of wetlands within the proposed territory.

**Existing Improvements:** Lot 502 of Map 3-1-6 and Lots 2400, 2600, 2700, 2800, 3000 and 3100 of Map 3-2-12-1-4 contain existing single family residences, septic systems, wells and related accessory structures. Lot 1100 of Map 3-1-6-2 is a Columbia County Park and contains camping sites, public restrooms and related accessory structures. Lot 2002 of Map 3-2-1-1 contains a recreational vehicle park with private septic and water systems. The Scappoose Industrial Airpark housing several airport related industrial uses and related improvements is located in the proposed territory.

### **Availability of Public Services:**

**Water:** An 18" municipal water line was extended from the City of Scappoose to the Scappoose Industrial Airpark pursuant to the terms of a grant and loan from the Oregon Economic Development

Department. The water line has sufficient capacity to meet both fire suppression and water consumption needs of Scappoose Industrial Airpark and all use along West Lane. The City water system has sufficient capacity to provide water through its existing water sources, an additional ground water source being developed at this time and through the recently rehabilitated 300,000 gallon reservoir.

**Sanitary Sewer:** The area is not currently served with public sewer. County approved on-site septic systems meet the current user needs. The nearest sewer line is located at Columbia Avenue. The sewer line that will provide service for the area has been designed and is ready to construct when funding becomes available. The City and the Port of St. Helens are pursuing grants and loans for this project through the Oregon Economic Development Department. The City's sewage treatment plant is currently at about 40 percent of its capacity and has sufficient capacity to serve future development within the annexed territory at maximum density allowable development for the recommended zoning.

**Streets:** Principle access to the territory proposed for annexation is West Lane Road which intersects Highway 30 on the north end and Columbia Avenue on the south. West Lane Road is a two lane paved road identified in the Scappoose Transportation System Plan draft as a major collector. According to the Scappoose Street System Inventory, from Columbia Avenue to Prairie Street, West Lane is a two lane road paved to a 20 foot width with good pavement condition.

The Transportation Plan prepared by David Evans & Associates, Inc., identifies no need for additional lanes to increase the capacity of West Lane Road between now and the Year 2015. A project to widen travel lanes to an urban major collector street design standard consisting of two 12 foot travel lanes with curb, gutter, bike lanes and sidewalks on each side is included in the long range plan.

**Storm Drainage:** Facilities in place at the Scappoose Industrial Airpark have been designed to accommodate storm drainage. Any development applications which may be requested in the future would be required to meet municipal storm drainage standards.

**Police:** The City of Scappoose Police Chief has reviewed the application and has no objection to the zone change. While the annexation will extend the City Police Department's patrol area, based on prior experience the Police Department does not anticipate a significant increase in demand for police service. He has submitted a memorandum stating that, at the time of annexation and zone change, the capacity of the police department is adequate to serve the area.

**Fire:** The Scappoose Rural Fire District Chief has reviewed the application and expressed support for the annexation of the airport. The improvements to the water system will allow the Port of St. Helens to continue construction on the west side. This annexation will not change fire service to the airport. The area lies within the current service area for the Scappoose Rural Fire Protection District. The water lines extended to the Airpark have been sized to meet fire suppression requirements.

**Utilities:** Telephone and electric services are already provided to the territory. No comments were received from utilities prior to June 19, 1997.

**Schools:** The Superintendent of Schools, Mr. Ed Danielson, submitted a letter stating that the current

school system enrollment is less than anticipated and that Scappoose needs more students.

**Port of St. Helens:** The Port of St. Helens filed this application for a zone change and annexation along with the City of Scappoose.

**Scappoose Drainage District:** On June 9, 1997 the Scappoose Drainage District stated that their board must meet to consider this and would return written comments by July 29, 1997. The entire territory is located outside the Scappoose Drainage District.

**Department of Land Conservation and Development:** No comments had been received as of June 19, 1997.

**Oregon Department of Transportation:** No comments had been received as of June 19, 1997.

**Columbia County Planning:** No comments had been received as of June 19, 1997.

**Columbia County Board of Commissioners:** No comments were received from the Columbia County Board of Commissioners prior to June 19, 1997.

#### CRITERIA AND EVALUATION OF CRITERIA:

1. **Scappoose Municipal Code 17.22.030 discusses the standards for the Planning Commission recommendation to the Council for zone changes.**

a. **The applicable comprehensive plan policies and map designation;**

Economic Goal 1 provides for maintaining conditions favorable for a growing, healthy, stable and diversified business and industrial climate. Re-zoning the Airpark and the properties located north of the former Crown Zellerbach Logging Road as Light Industrial is consistent with this goal because of the excellent opportunities the Airpark provides to expand, stabilize and diversify the local economy. As stated in an October 30, 1996 report by Gene Leverton and Associates entitled "Economic Benefits of Scappoose Airport", by the summer of 1996 about 65 people were employed at the airport, with about 90% of employees residing in Columbia County and with an annual payroll of more than \$1.2 million. The 65 employees represent a greater than fourfold increase in employment since 1990, when only about 15 people were employed at the Airpark. This increase reflects the very favorable industrial climate associated with the Airpark.

Prospects for continued industrial growth are very bright. Sherpa Aircraft, a maker of specialty cargo aircraft may soon be expanding its operations to employ up to 150 people. AkroTech Aviation, Inc., a manufacturer of airplane kits, has applied to the Federal Aviation Administration (FAA) for certification to manufacture a new plane which, if granted, could expand that company's employment by an additional 100 employees. Also, Composites

Unlimited has offered to the Port to construct another 60,000 square foot building to accommodate its expanding business.

Economic Policy 1 requires the City to make sufficient land available for the anticipated expansion of industrial activities. When the City expanded its urban growth boundary to include the Airpark, it recognized the Airpark as a focal point of its economic and industrial development strategy. More recently, the City reemphasized this point in a letter dated July 16, 1996 from City Manager Don Otterman to County Planner Glen Higgins. The letter, which was filed in response to a 1996 application to Columbia County to rezone over 400 acres to Surface Mining stated that the City's plan is based on the assumption that "most industrial development will occur in the area around the airport." That letter further indicated that (1) the City had incorporated the Scappoose Industrial Airpark Master Plan into its approved Comprehensive Plan; and (2) the City's economic policies seek to attract diverse, labor intensive and pollution-free industrial development that is compatible with airport operations.

Economic Policy 13 requires the City to coordinate its plans for public facilities to accommodate expected industrial and residential growth. Already, through a coordinated effort with the Port and the Oregon Economic Development Department (OEDD), the City has extended water lines to the Airpark to serve the businesses located there and future light industrial uses along West Lane Road. While on-site septic systems are adequate to meet Airpark user needs, the City and Port are coordinating efforts to seek additional state funds to expand sewer lines to the Airpark. Engineering plans for the extension of sewer already have been completed.

Economic Policy 4 encourages the expansion of employment opportunities within the urban area. With the annexation and re-zoning of the Airpark and the properties north of the former Crown Zellerbach Road to Light industrial the City will continue the policy of encouraging expansion of employment opportunities that was vigorously established when the County adopted and applied the Airport Industrial zone to the Airpark. As previously discussed, the outlook for economic expansion at the Airpark is bright.

Economic Policy 5 promotes pollution free industrial development. Businesses locating at the vicinity of the airport necessarily must be clean, light industrial industries because polluting industries would create safety hazards to airport operations and violate federal regulations applicable to the airport.

Economic Policy 6 provides for City cooperation with agencies, businesses and interest groups in efforts to develop program strategies for improving the local economy. As noted, the City has worked with the Port and the state (in particular, OEDD) to encourage and promote industrial growth in the vicinity of the Airpark through the expansion of water and sewer lines. The extension of full city services over the planning period should increase the attractiveness of the Airpark and other properties in the vicinity and thereby improve the local economy. The City's economic development strategy, which focuses industrial development at the Airpark, has been reviewed and acknowledged by the Land Conservation and

Development Commission.

All other economic goals and policies are either inapplicable or not relevant to this re-zoning application or are nonmandatory criteria.

Based on the above findings, the zone change application satisfies the applicable economic goals and policies.

Public Facilities Goal 1 is to provide the public facilities and services which are necessary for the well being of the community and help guide development in conformance with the Comprehensive Plan. For the Airpark, the Comprehensive Plan encourages industrial development and the provision of air transportation services. As a transportation terminal the Airpark itself is a "public facility" that serves the well being of the community. Further, the City is providing or intends to provide water and sewer services needed to encourage and support industrial development. Water already has been extended to the site, and as earlier noted, the City and Port are coordinating efforts to extend public sewer to the site. While the extension of sewer is not yet required due to the presence of adequate septic systems on-site, these efforts will help guide development at the Airpark and in the surrounding area and are consistent with Goal 1. Scappoose Airport Park, a Columbia County Park, will have a base zone of Light Industrial and be designated public lands which limits development to public facilities.

Public Facilities Goal 2 directs public facilities and services, particularly water and sewer systems, into the urban growth area. Because these systems are or will be extended throughout the area and because the entire area is within the Scappoose urban growth boundary, Goal 2 is met.

Public Facilities Goal 3 requires the City to ensure that the capacities and patterns of utilities and other facilities are adequate to support intensive land use patterns of the comprehensive plan. This goal was applied at the time the urban growth boundary was expanded to include the area north of the former Crown Zellerbach Logging Road and the area was designated for industrial development. That decision was acknowledged by the Land Conservation and Development Commission. The Goal continues to be met. In addition to extending the water line, the City has placed a 300,000 gallon reservoir back on line, which together with other City water sources provides adequate water capacity to meet identified urban needs including potential development of 13 acres for which manufactured home is the recommended zoning. Estimated maximum buildout could be 70 additional units of housing. The properties for which residential zoning is recommended are located adjacent to existing urban development with full municipal services. The existing on-site septic systems are adequate to meet current needs. The City and Port are working with OEDD to obtain a grant and loans to extend public sewer to the Airpark. The project has already been designed and is ready to construct when funding becomes available. The existing municipal wastewater treatment facility is currently operating at about 40 percent of capacity.

City storm drainage requirements will be required to be met at the time of development. Existing facilities at the Airpark have already been designed to accommodate storm drainage. The entire area already lies within the Scappoose Rural Fire Protection District, and the water lines have been sized to meet fire suppression requirements. Fire suppression was a primary reason for the City and Port pursuing the OEDD water grant. The Scappoose Police Department has stated that they are able to provide service to area and area residents support receiving law enforcement services from a much closer provider. Telephone and electricity services already are available throughout the area.

Public Facilities Policy 1 requires the City to design urban facilities and services, especially water and sewer systems, to eventually serve the designated urban growth area. To further promote economic development, the City and Port, in conjunction with the OEDD, have extended public water to the Airpark. Second, the City and Port are currently coordinating the extension of sewer to the Airpark through another OEDD grant to meet long-term Airpark user needs. Plans for the extension of sewer lines already have been developed and designed with capacity to serve the area. This policy speaks of designing water and sewer systems to "eventually" serve the designated urban growth area. While the expansion of sewer to the area is being planned, the immediate availability of sewer is not required due to the adequacy of on-site septic systems. Both the City sewer and water systems have adequate capacity to serve the area needs over the planning period. Because the capacity of these systems is adequate, public water already has been extended to the Airpark, and the extension of public sewer is being planned and is feasible, Policy 1 is met.

Public Facilities Policy 5 requires that the capacities and patterns of utilities and other facilities be adequate to support the land use patterns of the Comprehensive Plan. This policy is met for the same reasons Goal 3 is met.

Public Facilities Policy 19 requires that the City approve annexations of new residential lands when there is sufficient capacity in the sewer, water, street, school, fire and police systems to serve the potential additional populace and sufficient in-filling of vacant land has occurred to warrant an expansion. There are adequate findings discussed elsewhere in this document to support a finding that sewer and water capacity is adequate to serve the residential properties. Principle access to the area is West Lane Road which intersects Highway 30 on the north end and Columbia Avenue on the south. West Lane Road is a two lane paved road identified in the Scappoose Transportation System Plan draft as a major collector. According to the Scappoose Street System Inventory, from Columbia Avenue to Prairie Street, West Lane is a two lane road paved to a 20 foot width with good pavement condition. The Transportation Plan prepared by David Evans & Associates, Inc., identifies no need for additional lanes to increase the capacity of West Lane Road between now and the Year 2015. A project to widen travel lanes to an urban major collector street design standard consisting of two 12 foot travel lanes with curb, gutter, bike lanes and sidewalks on each side is included in the long range plan. The City of Scappoose Police Chief has reviewed the application and has no objection to the zone change. While the annexation will extend the City Police Department's patrol area, based on prior experience the Police Department does not anticipate a significant increase in demand for



police service. He has submitted a memorandum stating that, at the time of annexation and zone change, the capacity of the police department is adequate to serve the area. The area is already served by the Scappoose Rural Fire Protection District and the Scappoose Rural Fire District Chief has expressed support for the annexation. The Superintendent of Schools, Mr. Ed Danielson, submitted a letter stating that the current school system enrollment is less than anticipated and that Scappoose needs more students.

Sufficient in-filling has occurred within the existing City limits to warrant expansion. There are approximately 22 lots available to builders in existing platted subdivisions and a majority of properties remaining for development within the current City limits are constrained by flood hazards, slope hazards and the location of existing municipal services. Realtors estimate the local vacancy rate at approximately 1% .

Public Facilities Policy 20 requires the City to approve annexations of new industrial lands only where there is sufficient capacity in the sewer, water, street, fire and police systems of the City. As noted above, both the sewer and water systems have adequate capacity to serve the proposed industrial lands. The area already lies within the Scappoose Rural Fire Protection District, and there is adequate police service as previously discussed. The area is served by West Lane Road, a two-lane road which is identified in the Draft Scappoose Transportation System Plan (TSP) as a major collector. Currently West Lane Road is not congested and has substantial capacity to serve the needs of Airpark industrial users. The TSP identifies no need for additional lanes to provide additional capacity. Rather, it indicates that two lanes remain sufficient to meet airport and industrial development needs at the Airpark, recommending only widening of travel lanes (from 10 feet to 12 feet) and the provision of bike lanes and a parking lane on one side. See TSP at page 70 and at Figures 10 and 12.

All other public facilities goals and policies are either inapplicable or not relevant to this rezoning application or are nonmandatory criteria.

Based on the above findings, the zone change application satisfies the applicable public facilities goals and policies.

Transportation Goal 1 is to develop and maintain diverse methods for moving people and goods which are: (a) responsive to the needs and preferences of individuals, business and industry; (b) suitably integrated into the fabric of the urban community; and (c) safe, rapid, economical and convenient to use. By offering air transportation to the general public, the Scappoose airport, a general aviation airport, helps meet this goal for a diverse transportation network. The airport is responsive to the needs and preferences of individuals, business and industry as demonstrated by the over 43,000 aircraft takeoffs and landings that occurred in 1994. The Scappoose Industrial Airpark Airport Layout Plan Update projects that by the year 2013, this number will increase to nearly 75,000 annual takeoffs and landings reflecting the importance of the airport to area residents and businesses. In all probability, this figure will be higher given the growth trends over the past three years. The airport is well integrated into the fabric of the urban community both

through its substantial use and through the presence of supporting businesses at the Airpark. The tremendous public support for the airport provided at recent hearings before Columbia County in response to an application by Lone Star to re-zone over 400 acres of land adjoining the airport for aggregate extraction attests to the integration of the airport into the community. With the application of the City's airport overlay zone and its close proximity to all areas of the city, the airport provides a safe, rapid, economic and convenient transportation option for local residents and businesses.

Transportation Goal 4 is to strengthen the economy by facilitating diverse means for transporting industrial goods. The airport supports this goal by providing the option of air transportation for area businesses and industries. About 106 aircraft were based at the Airpark in 1994. That number is forecast to grow to 183 by the year 2013. Given that by 1996, about 130 aircraft were based at the Airpark, the 2013 figure could well be low. These aircraft serve a number of users, including Airpark industrial users.

Transportation Goal 6 is to provide a more reliable basis for planning new public and private developments whose location depends on transportation. The City expanded its urban growth boundary to include the Airpark, and adopted the Airpark master plan, to further its economic strategy that is focused on Airport industrial growth and expansion. Airports are recognized as significant attractants of certain kinds of industries, including airplane and airplane component manufacturing and assembly, flight instruction, aircraft testing, air cargo warehousing and distribution, and the like. The prior inclusion of the Airpark in the urban growth boundary, and the current annexation and re-zoning to the City Light Industrial Zoning, supports City efforts to promote and enhance industrial development at the Airpark and the surrounding properties. Placing decision-making in the hands of the City, provides the City with a more reliable basis for planning new public and private developments whose location depends on air transportation.

Transportation Policy 11 requires the City to work with the Port of St. Helens on its plans for the Scappoose Airpark, as well as for industrial development and transportation. The Port and the City enjoy a good working relationship, and the annexation and re-zoning of the Airpark should further that relationship. The Port and the City can and will continue to work cooperatively on plans for developing the Airpark to provide safe and efficient air transportation and promote industrial development providing family wage jobs for City residents.

All other transportation goals and policies are either inapplicable or not relevant to this re-zoning application or are nonmandatory criteria.

Based on the above findings, the zone change application satisfies the applicable transportation goals and policies.

General Land Use Goal 6 requires the City provide sufficient lands for a variety of housing choices. All lands within the current City limits designated Manufactured Home have been

developed or have approved development plans.

General Land Use Goal 19 requires the City to hold public hearings as part of the land use decision-making process. A preliminary annexation public hearing was held at the June 16, 1997 before the Scappoose City Council. A public hearing regarding the Zone Change is scheduled for June 26, 1997 at the Planning Commission. A public hearing regarding the final Annexation approval is scheduled before the Scappoose City Council on July 7, 1997.

This re-zoning application is consistent with numerous other goals. Goal 8 (suitability of industrial lands for industrial purposes), 10 (Public and semi-public development should be located to encourage land development patterns that benefit the whole city), 12 (adequate public facilities to encourage an orderly and efficient growth pattern), 13 (develop a safe and convenient transportation system), 14 (strengthen and diversify the local economy), and 16 (effectively utilize man-made resources of the community) as previously discussed elsewhere in this document. The area provides excellent industrial development opportunities that will strengthen, diversify and benefit the local economy and the citizenry of Scappoose. It is adequately served by public facilities and the Airpark is an important element of a safe and convenient transportation system.

All other general land use goals and policies are either inapplicable or not relevant to this re-zoning application or are nonmandatory criteria.

Based on the above findings, the zone change application satisfies the applicable general land use goals and policies.

This re-zoning application does not involve amendments to the urban growth boundary. Because Urban Growth Boundary (UGB) Goal 5 and Policies 7 and 8 could be questioned as being applicable, they are addressed here. UGB Goal 5 is to develop the airport area in a manner to create an industrial park. While this re-zoning application does not include a specific development proposal the re-zoning to Light Industrial supports creation of an industrial park. The Airpark already exhibits such features as a result of its re-zoning to Airport Industrial several years ago. Accordingly, this application is consistent with Goal 5.

UGB Policy 7 requires that the City approve annexations of new residential lands when there is sufficient capacity in the sewer, water, street, school, fire and police systems to serve the potential additional populace and sufficient in-filling of vacant land has occurred to warrant an expansion. As discussed previously under Public Facilities Policy 19, the proposed annexation and zone change satisfy this policy.

UGB Policy 8 requires the City to consider annexation of industrial lands only when sufficient capacity exists for the delivery of sewer, water, street, police and fire services. As previously discussed, a new water line with sufficient capacity for industrial and fire suppression usage has been extended to the entire area, and the City and Port are currently coordinating on the extension of sewer. The existing municipal sewer system has

substantial available capacity to accommodate Airpark uses. Because the Airpark already lies within the fire district, it will not extend the coverage area for fire. As noted earlier, the City police can adequately provide service to the area, and West Lane Road has sufficient capacity to meet roadway needs. Because sufficient capacity exists for the delivery of the identified services, consideration of the annexation application and related zone change is timely.

UGB Policy 8A further provides for maintaining the area east of West Lane Road in an agricultural holding zone until approved for industrial or airport related development. All lands located east of West Lane Road that were included in the Urban Growth Boundary expansion discussed in Policy 8A are either part of this application for light industrial zoning or will continue in the current County zoning. As earlier noted, the Airpark was approved several years ago for industrial and airport-related development.

Under UGB Policy 8D, the Port already has signed an agreement with the City to annex to the City. This annexation and re-zoning application is triggered in large measure by property owner's desiring to connect to the City water system.

All other urban growth boundary goals and policies are either inapplicable or not relevant to this re-zoning application or are nonmandatory criteria.

Based on the above findings, the zone change application satisfies the applicable urban growth boundary goals and policies.

Housing Goal 1 supports increasing the quantity and quality of housing for all citizens and Housing Policy 6 specifically discusses mobile homes. Current state law allows the placement of manufactured homes in any zone allowing single family residences and local ordinance supports state law. Manufactured Home parks are allowed only in the MH zone. Currently all land zoned MH is either developed or has an approved development plan. The recommended zone change will make additional land available for this housing alternative.

Housing Goal 2 discusses locating housing so that it is fully integrated with land use, transportation and public facilities. Some of the existing housing in the area where MH zoning is recommended is already developed at urban densities on parcels containing approximately 6,500 square feet. The properties are adjacent to existing City residential development and adequate transportation and public facilities are available or can be made available as discussed previously.

All other housing goals and policies are either inapplicable or not relevant to this re-zoning application or are nonmandatory criteria.

Based on the above findings, the zone change application satisfies the applicable housing goals and policies.

Industrial Goal 1 is to provide a place for industrial activities where their requirements can be met and where their environmental effects will have a minimal impact upon the community. The Scappoose Industrial Airpark and other properties proposed for Light Industrial zoning have been recognized by the City and others as being located appropriate to meet the needs of industrial development. This recognition has been confirmed by the substantial growth or expansion of businesses and employees over the past several years and by the interest shown in the Airpark by businesses like AkroTech Aviation, Sherpa Aircraft, Composites United, Oregon Aero and SportCopter, Inc. Moreover, at the recent land use hearings before the Columbia County Commissioners regarding a major zone change for Northwest Aggregates, testimony was offered by Carrie Novick, President of the Oregon Airport Managers' Association, and Mike Dermond, Aerospace Industry Association of Oregon, that the Airpark is a viable, rapidly growing economic resource capable of attracting significant new industry. The Port concurs with that assessment and the interest shown in the Airpark, as documented in the Leverton Report, lend further support to that conclusion.

Because the Airpark is situated on the edge of the urban growth boundary, away from urban residential development, and because industrial development at the Airpark will consist of clean, non-polluting industries, industrial development at the Airpark will have a minimal impact on the community, consistent with Goal 1.

Industrial Policy 1 is to provide suitable areas for industrial expansion, utilizing large, flat areas that are separated by buffers from the City's residential districts. The Airpark is a large, flat area separated from residentially zoned lands by unincorporated land in farm use. Further, as earlier noted in this narrative, the Airpark was identified by the City as the focal point of its economic strategy when the area was added to the urban growth boundary. Consequently, the City already has found this area to be suitable for industrial expansion. The re-zoning of the property from County Airport Industrial to City Light Industrial is consistent with the City's prior planning decisions for this area, which have been acknowledged by LCDC. For these reasons, Policy 1 is satisfied.

Industrial Policy 2 is to prevent industrial development from disrupting homogeneous residential neighborhoods. Because the Airpark is separated from residential neighborhoods by unincorporated land in farm use, and because industrial development at the Airpark would not be unattractive or environmentally unfriendly or require vehicles to travel through residential neighborhoods, this policy is met.

Industrial Policy 3 is to locate industrial areas so that they have a convenient relationship to the community's transportation network without generating heavy traffic through residential areas. The Airpark is ideally suited to attract industrial users who want or need a location near an airport. Further, the Airpark has convenient access to Highway 30 via West Lane Road. Access via West Lane Road can avoid travel through residential areas of the City. The Scappoose Transportation Plan identifies a project to develop Forrest Road during the 20 year planning period. Construction of Forrest Road would provide an additional connection from West Lane to Highway 30. The necessary property, identified as the former Crown Zellerbach Logging Road, has been purchased by the City of Scappoose in

cooperation with the Port of St. Helens and Columbia County. For these reasons, Policy 3 is met.

Industrial Policy 4 is to screen, setback or buffer the boundaries of industry, particularly unsightly areas which can be viewed from arterials or residential areas. The Airpark is separated from residential areas within the City of Scappoose urban area by unincorporated land in farm use. Industrial development in the area being discussed is not visible from Highway 30, the only arterial serving Scappoose. Further, the "light industrial" nature of uses at the Airpark is such that industrial development there should not be unsightly. All development would be subject to the requirements of the Scappoose Municipal code for screening, setbacks and buffering and would be required during development review if appropriate to protect residential areas. For these reasons, Policy 4 is met.

Industrial Policy 5 applies the industrial lands designation where industrial concerns have become established and where vacant industrial sites have been set aside for this purpose. This re-zoning is consistent with Policy 5 because the City's plan already designates this area for industrial development; substantial industrial development already has occurred at the Airpark in accordance with the existing County plan designation and Airport Industrial zoning; and the Airpark is recognized by the City as a focal point for its economic development strategy.

Industrial Policy 6 is to protect the stability and functional aspects of industrial areas by protecting them from incompatible uses. While this policy does not directly apply to this re-zoning application, the City recently demonstrated its substantial support for furthering this policy with respect to the Airpark through the City Council's unanimous opposition to Northwest Aggregate's application to re-zone over 400 acres adjoining the Airpark to allow surface mining, an incompatible use. The City's Airport Overlay Zone, Land Use and Development Code Section 17.88, provides further protection from incompatible uses for the airport and industrial uses located at the Airpark.

All other industrial land goals and policies are either inapplicable or not relevant to this re-zoning application or are nonmandatory criteria.

Based on the above findings, the zone change application satisfies the applicable industrial lands goals and policies.

The existing, approved, City of Scappoose Comprehensive Plan map designates the subject property as mobile home or industrial land. Where recommended for properties north of the former Crown Zellerbach Logging Road, the proposed City zoning of Light Industrial allows essentially the same uses currently permitted in the Airport Industrial district for Airport properties and is consistent with the Industrial plan designation. Because the Light Industrial zone most closely matches the Airport Industrial zone and is consistent with the designation of this property as industrial, it is in conformance with the map designation and this standard is met. While the underlying zoning for the property identified as Scappoose Airport Park is recommended as Light Industrial, a Public Land designation will also apply

as the property is part of the Columbia County Parks system. For properties south of the former Crown Zellerbach Logging Road, the recommended zoning of MH allows continued residential development and is consistent with the Comprehensive Plan map designation of MH.

Based on the above findings, the zone change application satisfies this criteria.

**b. The change will not adversely affect the health, safety and welfare of the community;**

The re-zoning of the area from County Airport Industrial to City Light Industrial and County Residential to City Mobile Home will not adversely affect the health, safety or welfare of the community. Instead, it will have very positive impacts on the health and welfare of Scappoose and community safety. As previously discussed, all public facilities, police, fire, schools and transportation are available to support future development of properties at the recommended zoning. Additional lands will be made available for housing developed to City standards.

Continuing to permit air transportation and industrial development at the Airpark will benefit the community's long term economic health and welfare. As earlier noted, from 1990 to 1996, employment at the Airpark grew from about 15 to 65 employees. Expanding, stabilizing and diversifying the economy and providing jobs that stay in the County provides greater protection in the event of an economic downturn, which significantly benefits the health and welfare of the community. The provision of jobs for community residents also indirectly benefits other area businesses. According to the Leverton Report, airport tenants spend about \$165,000 per year locally on supplies, sub-contracted work, and contract labor. This amount should increase as employment opportunities expand in the lands recommended for industrial zoning.

Based on the above findings, the zone change application satisfies this criteria.

**c. The applicable standards of this Title or other applicable implementing ordinances.**

Scappoose Municipal Code 17.136 discusses the process for a zone change concurrent with a request for annexation. Following a public hearing, the City Council adopted a resolution initiating annexation of the territory and dispensing with elections at the June 16, 1997 Council Meeting. Following a second public hearing, scheduled for July 7, 1997 and after receipt of a recommendation from the Planning Commission regarding zoning, the City Council will make a final determination on the annexation and zone change.

Section 17.136.040 (B) requires that the zoning designation placed on the property be the zoning district that most closely implements the City or County Comprehensive Plan map designation. The property has two recommended zoning designations: north of the former Crown Zellerbach Logging Road, property is designated Industrial; south of the former

Crown Zellerbach Logging Road, property is designated Manufactured Home. As previously discussed, these recommended zoning designations most closely implement both the City and the County Comprehensive Plan designations.

Scappoose Municipal Code Chapter 17.162 defines the approval process for zone changes. The Planning Commission is authorized to make a recommendation to the City Council on zoning designations for lands annexed to the City following a public hearing conducted in accordance with Scappoose Municipal Code 17.162. Public notice for the June 16, 1997 City Council public hearing on the preliminary review of the annexation was mailed to property owners with 200 feet of the subject property May 30, 1996. This notice also included the public hearing notice for the Planning Commission hearing on the zone change scheduled for June 26, 1997 and the final hearing before the City Council scheduled for July 7, 1997.

Based on the above findings, the zone change application satisfies this criteria.

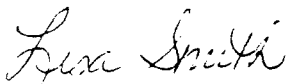
- d. **Evidence of change in the neighborhood or community or a mistake or inconsistency with the Comprehensive Plan or Zoning map as it relates to the subject property.**

This re-zoning application is submitted in conjunction with the annexation of the subject properties to the City of Scappoose. Accordingly, it is not submitted to correct a mistake or inconsistency with the Comprehensive Plan or Zoning Map or to reflect a change in the neighborhood.

#### **RECOMMENDED ACTION:**

Based on the findings contained in this staff report, it is recommended that the Planning Commission approve a motion to recommend to the City Council that the properties north of the former Crown Zellerbach Logging Road be zoned Light Industrial, that the Scappoose Airport Park also contain a designation as Public Land and that the properties south of the former Crown Zellerbach Logging Road be zoned as Mobile Home.

Respectfully submitted,



E. L. Smith  
Assistant Planner

Attachments: Exhibit A - Map of Properties included in Zone Change

F:\documents\reports\Airport Zone Change Staff Report.wpd



**CITY OF SCAPPOOSE**  
**Supplemental Staff Report**  
**November 3, 1997**

**Application:** Adopt the Scappoose Transportation System Plan and related amendments to the Scappoose Comprehensive Plan and Scappoose Municipal Code

**Applicant:** City of Scappoose  
P.O. Box P  
Scappoose, Oregon 97056

**Public**

**Hearings:** Scappoose Planning Commission on September 25, 1997 continued to October 9, 1997

Scappoose City Council on October 20, 1997 continued to November 3, 1997

**Findings of Fact**

**Citizen Participation:**

The City of Scappoose has received the attached petition from residents of the Bird Road area opposing the project identified in the October, 1996 draft transportation system plan as Project 68 (widen Bird Road from Columbia Avenue to Forest Road). The Planning Commission recommendation and the October, 1997 draft transportation system plan being acted on by the City Council do not include this project. The petition is hereby entered into the record.

Mr. Steve Abel, Stoel Rives, LLP, submitted a 3 paragraph letter dated October 20, 1997 at the October 20, 1997 City Council hearing. Given the lack of specifics in that letter, staff is uncertain what criteria Mr. Abel is addressing and the Council is advised that if this failure to raise an issue with enough specificity does not allow the Council to address the issue, an appeal to the Land Use Board of Appeals on that issue is precluded.

The first paragraph of Mr. Abel's letter states: "Mr. Ross Dalton of Lone Star Northwest will be delivering to you the Wildlife Evaluations prepared on behalf of Lone Star Northwest at its property located in Columbia County, Oregon. As you will note from the studies, any water impoundments located on the Lone Star site are not likely to result in significant increases in hazardous movements of birds feeding, watering or roosting in areas across the runways or approach corridors."

Given Mr. Abel's verbatim use of language from House Bill 2605, Section 9 (2)(b), staff

assumes that the Wildlife Evaluation has been delivered to the Council and entered into the record because Mr. Abel believes that something in the Scappoose Transportation System Plan conflicts with that statute. That assumption is further supported by paragraph 3 of Mr. Abel's letter which states "Finally, the City may not re-adopt its Airport Master Plan and related plans without complying with the Airport Planning Rule adopted by the 1997 Legislature". Staff believes this is a reference to House Bill 2605 which was adopted by the 1997 Legislature and amends ORS 836. ORS 836 is titled "Airports and Landing Fields".

As amended by HB 2605, ORS 836.610 requires that local governments amend their comprehensive plan and land use regulations "not later than the first periodic review conducted after the date of adoption of a list of airports by the Department of Transportation". The Department of Transportation has until July 1, 1998 to complete this task. Because the City of Scappoose is currently in Periodic Review and has been in periodic review since January, 1996, compliance with House Bill 2605 would not be mandated by statute until sometime in the next century when Scappoose receives notice of its next periodic review. This same language requiring compliance at the "next periodic review" is included in OAR 660-013-0160 which was adopted by the LCDC on December 23, 1996, twelve months after the City of Scappoose began periodic review. With the exception of rule changes that specifically indicate otherwise, staff and the City's legal counsel agree that compliance with any ordinance amendments resulting after receipt of official notification occur in the next periodic review. Otherwise, a governing body would never be able to complete a periodic review because of continual rule changes by state agencies and actions by the legislature.

OAR 660-013-0160 also states that amendments to acknowledged comprehensive plans require full compliance "except where the requirements of the new regulation or designation are the same as the requirements they replace". Incorporating the existing Airport Master Plan and ALP update into the Transportation System Plan does not change regulations or requirements. These federally required and federally approved documents that currently govern the airport continue to be the same.

Mr. Abel's first paragraph closes by stating "Mr. Rathburn's conclusions have been certified by the Federal Aviation Administration in its letter to Columbia County dated October 17, 1996. The FAA letter is enclosed." A careful reading the FAA letter submitted by Mr. Abel indicates that the FAA is not "certifying Mr. Rathburn's conclusions" as Mr. Abel states. They are, instead, concurring with the recommendations of the Animal Damage Control Department of the US Department of Agriculture. The FAA does not categorically state that the proposed development will not adversely affect the safety and efficiency of the airport. Instead, they qualify their comments with the phrases "should not" and "if".

The first "if" is "if the mitigation measures in the Wildlife Management Plan" are followed. According to the attached unofficial transcript of Mr. Rathburn's remarks at the November 13, 1996 Columbia County Planning Commission meeting, hereby entered into the record, the

chemical deterrent identified as "Re-Jex It" was to be removed from the wildlife management plan. In a December 10, 1996 letter, Thomas Hoffman with USDA Animal Damage Control states that ADC does not support removing the chemical Re-Jex It from the wildlife management plan and again qualifies their comments with "if the mitigation measures outlined in the Plan" are followed. Mr. Hoffman's December 10, 1996 letter and attachments including Mark Greenfield's affidavit dated November 27, 1996, a letter to Mr. Hoffman from Steve Abel dated December 9, 1996 and a letter from EnviroScience to Jeffrey Van Natta dated December 9, 1996 hereby entered into the record.

The FAA "if" also refers to 4 "actions". On Page 6 of the ADC Wildlife Management Plan Review attached to the FAA letter, ADC states they do not agree with Enviro-Science that the displacement of feeding habitat for the species which currently use the proposed mining area is not expected to represent a significant impact to the existing use of the flight corridor or represent a higher risk to airport operations. Instead, ADC believes that the data presented indicates displaced birds from the proposed mining area could utilize those habitats within the approach zone. The second of the 4 actions the FAA "if" refers to is that the "ADC review states that birds displaced from the mining area could utilize the habitat within the approach zones and the wildlife mitigation plan associated with the mining operation should address this potential airport hazard". Based on the definition of significant in House Bill 2605 as "increased flight activity by birds across approach corridors, the FAA and ADC's comments on the potential increased use of approach corridors by displaced birds and the failure of the wildlife mitigation plan to address this hazard, it is not accurate for Mr. Abel to claim that water impoundments located on the Lone Star site are not likely to result in significant increases in hazardous movements of bird feeding, watering or roosting in approach corridors.

The Scappoose Transportation Systems Plan is the subject of this hearing regardless of comments about wildlife evaluations. The very existence of mitigation plans, however, indicates that the potential for bird/aircraft conflict exists. Otherwise, no mitigation plan would have been prepared following the evaluations. Both Columbia County Ordinance Section 1156 and Scappoose Municipal Code 17.88 include the criteria "will not create bird/aircraft conflicts". Neither ordinance states "will mitigate bird/aircraft conflicts". Staff does not believe that ordinances related to the creation of bird/aircraft conflicts are applicable to the Scappoose Transportation System Plan. However, if they were determined to be applicable, the impacts of adopting the Scappoose Transportation Systems Plan including construction of new roads, bike paths and sidewalks, improvements of existing roads, use of railroads and pipelines and incorporation of the existing Scappoose Industrial Airpark Master Plan and Airport Layout Plan update do not "create" bird/aircraft conflicts. Therefore, staff finds that the draft Scappoose Transportation Systems Plan complies with both the City and County statutes regarding bird/aircraft conflicts.

The City of Scappoose is required by OAR 660-012-0020 to include an element that identifies where public use airports are located within the planning area and to include all areas with

airport imaginary surfaces and other areas covered by state and federal regulations. That does not mean, however, that the City must create this element. OAR 660-012-0010 states "it is not the purpose of this division to cause duplication of or to supplant existing applicable plans and programs". OAR 660-012-0015 (b) states that Port District shall prepare and adopt plans for transportation facilities and services they provide. The Port of St. Helens has prepared and adopted a master plan (1991) and an airport layout plan update (1994) for the Scappoose Industrial Airpark. Copies of portions of the Port of St. Helens' meeting minutes for June 26, 1991, August 14, 1991 and March 8, 1995 and the letters of acceptance from the FAA, dated 8/5/91 and 2/15/95, are attached and hereby entered into the record.

Finally, regarding paragraph 2 of Mr. Abel's letter, he states "We also understand that the Transportation System Plan is only effective within the jurisdictional boundaries of the City of Scappoose. Any effort to extend extraterritorial land use power is unlawful". The City of Scappoose has spent the last two years preparing a draft transportation system plan to guide the development of transportation systems projects for the next twenty years. For planning purposes, the area included in that plan is the Urban Growth Boundary as that is the area recognized by the State of Oregon for potential expansions of the incorporated municipality during the next twenty years. As previously stated in the September 17, 1997 staff report, copies of the proposed Transportation System Plan have been submitted to the Columbia County for their review and comment. No comments regarding conflicts between the City of Scappoose Transportation System Plan and Columbia County's plans were received. Any ordinance or project implementing the plan will apply as authorized by statute.

The decision making process for adopting the Scappoose Transportation Systems Plan is a legislative and is based on the criteria in Scappoose Municipal Code 17.160 including:

1. Any applicable statewide goals and guidelines (Goal 12, Transportation); and
2. Any federal or state statutes or rules found applicable (ISTEA, the Oregon Transportation Planning Rule, Oregon Highway Plan, Oregon Bicycle Plan, Highway 30 Corridor Plan); and
3. The applicable comprehensive plan policies (Scappoose Transportation Goals and Policies and UGB Agreement)
4. The applicable provisions of the implementing ordinances (Scappoose Municipal Code 17.154, 17.160 and 13.28).

Conclusion: Based on the above findings of fact, the findings of fact in the September 17, 1997 staff report and the October 15, 1997 supplemental staff report, the draft Scappoose Transportation System Plan dated October, 1997 as amended by the attached project list and Figures 10, 11 and 14, satisfies all applicable criteria.

**Recommended Action:**

**Scappoose Transportation System Plan**

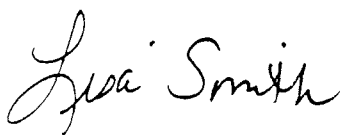
**Supplemental Staff Report**

**November 3, 1997**

**Page 4 of 5**

Based on the findings contained in the staff report dated September 17, 1997, the supplemental staff reports dated October 15, 1997 and November 3, 1997 and exhibits attached to said staff reports; the testimony at the Planning Commission public hearings on September 25 and October 9 and the Planning Commission recommendation, staff recommends that the Scappoose City Council incorporate the amended project list and Figures 10, 11 and 14, amend the reference to Exhibit E on Page 69 to read Exhibit F and adopt **an ordinance adopting the Scappoose Transportation System Plan, amending the Scappoose Comprehensive Plan and amending Chapters 13 and 17 of the Scappoose Municipal Code** which is included in the Council Packet as Item 6.3.

Respectfully Submitted,



E. L. Smith  
Assistant Planner

Attachments hereby incorporated into the record:

- Petition from resident of Bird Road opposing Project 68
- Unofficial Transcript of Mr. Rathburn's remarks at November 13, 1996 Columbia County Planning Commission meeting
- Thomas Hoffman, ADC, Letter dated December 10, 1996
- Mark Greenfield's affidavit dated November 27, 1996
- Letter from Steve Abel to Thomas Hoffman dated December 9, 1996
- Letter from EnviroScience to Jeffrey Van Natta dated December 9, 1996
- Portion of Port of St. Helens Meeting Minutes June 26, 1991
- Portion of Port of St. Helens Meeting Minutes August 14, 1991
- Portion of Port of St. Helens Meeting Minutes March 8, 1995
- FAA Letter to Shirley Parsons dated August 5, 1991
- FAA Letter to Shirley Parsons dated September 15, 1995

**Sample Motion:**

I move that the Scappoose City Council adopt the findings contained in the staff report dated September 17, 1997, the supplemental staff reports dated October 15, 1997 and November 3, 1997 and exhibits attached to said staff reports; the testimony at the Planning Commission public hearings on September 25 and October 9 and the Planning Commission recommendation, incorporate the amended project list and Figures 10, 11 and 14 into the draft October, 1997 Transportation Systems Plan, amend the reference on Page 69 to Exhibit E to read Exhibit F, and adopt an ordinance adopting the Scappoose Transportation System Plan, amending the Scappoose Comprehensive Plan and amending Chapters 13 and 17 of the Scappoose Municipal Code.

## PETITION AGAINST TRANSIT PROJECT #68

This signed petition will serve as formal notice to the Scappoose City council and the Planning Commission of the opposition to the proposed Street Improvement Project #68 by the residents of Bird Road. All of the undersigned individuals are aware of the plan put forth by the City of Scappoose and will take necessary legal action to prevent Project #68 from being implemented.

Additionally, all of the undersigned are citizens of Columbia County, not the City of Scappoose, and wish to remain as such until the city is notified otherwise of our intention to be annexed.

Name	Address	Phone #
<i>Kirk Holte</i>	52447 Bird Rd.	543-7230
<i>MR + MRS ROH + Tummy Faith</i>	52477 Bird Rd	543-2482
<i>Hubert Stegman</i>	52432 Bird Rd	543-3210
<i>Irene Stegman</i>	52432 Bird Rd.	543-3210
<i>Kerni B. Munnighan</i>	52408 Bird Rd.	543-5011
<i>Jean Munnighan</i>	52408 Bird Road	543-5011
<i>Mrs. Mrs. Fort L. Spielmeier</i>	52350 Bird Rd.	543-6633
<i>Robert (C. Lee)</i>	34170 ECOC AVE SCAPPOOSE OR 970	
<i>Donald J. Dalvey</i>	52515 Bird Rd	543-2052
<i>Doreen + Carol Halacias</i>	52511 Bird Rd.	543-5788
<i>Paul P. Ames</i>	52463 Bird Rd.	543-6996
<i>Lana Ames</i>	52463 Bird Rd.	543-6996
<i>Jewel W. Smith</i>	52558 Bird Rd.	543-2000
<i>James B. Smith</i>	52558 Bird Rd.	543-2007
<i>John J. Beverly</i>	52468 Bird Rd.	543-6140
<i>Pat Adams</i>	52470 Bird Rd	543-5593
<i>Janne Anderson</i>	52470 Bird Rd	543-5593
<i>Bart + Rachel Miller</i>	52487 Bird Rd.	543-3346

CC:  
City of Scappoose Planning Commission  
Scappoose City Council  
Port of St. Helens  
Columbia County Land Use Office  
Board of Commissioners, Columbia County

Received by Peter - all

Dec 20 10/20/77 Council mtg

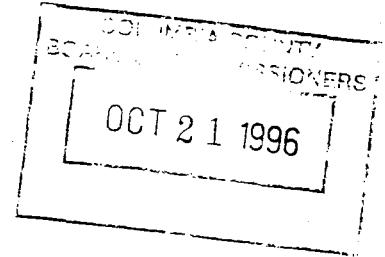




U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Northwest Mountain Region  
Colorado, Idaho, Montana  
Oregon, Utah, Washington  
Wyoming

1601 Lind Avenue, S. W.  
Renton, Washington 98055-4056



October 17, 1996

Mr. Joel R. Yarbor  
Board of County Commissioners  
Columbia County Courthouse  
St. Helens, Oregon 97501

Dear Mr. Yarbor:

This letter refers to the request of the Columbia County Board of County Commissioners for the Federal Aviation Administration, Northwest Mountain Region, Airports Division's comments on the wildlife evaluation that was completed for Lone Star Northwest's proposed aggregate mining operation, near Scappoose Industrial Airpark. This letter is also being addressed to the Port of St. Helens, the owner and operator of the airport.

We commented on the proposed operation on June 29, 1995. Our comments were based on a review of the "Wildlife Evaluation and Impact Assessment, Wildlife Management Plan and Report Summary," prepared by EnviroScience, Inc., and comments made by the U. S. Department of Agriculture, Animal Damage Control (ADC). Subsequently, it was determined that the ADC did not have sufficient time to give the proposal a thorough review, which would have enhanced the process. This review was completed and forwarded to us on September 23, 1996. We have enclosed a copy of the report, with the following comments:

- a. We concur with the ADC's Executive Summary recommendations, except for the third item. We recommend that Columbia County, rather than Lone Star Northwest, organize and manage the Wildlife Review Committee.
- b. The EnviroScience assessment found that potential bird hazards currently exist in the runway approach zones. The Port of St. Helens should take necessary steps to insure that these existing bird hazards are mitigated. In addition, the ADC review states that birds displaced from the mining area could utilize the habitat within the approach zones. The wildlife mitigation plan associated with the mining operation should address this potential airport hazard.

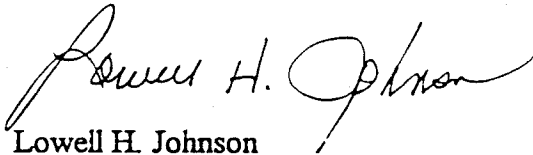
*"Expect Excellence"*

c. The impact of the proposed project on aviation safety can be mitigated by the measures described in the "Wildlife Management Plan." Columbia County must insure that effective mitigation measures are continued, as long as the airport is in operation.

d. The approved Airport Layout Plan (ALP) anticipates airport expansion and increased aircraft operations within the next 20 years. This appears to be in conflict with the development proposed for Phase 7 of the mining operation. We recommend that no development take place in this phase of the mining operation, until the aviation needs of the airport, as shown on the approved ALP, are satisfied.

We believe that the proposed development should not adversely affect the safety and efficiency of Scappoose Industrial Airpark, if the mitigation measures in the "Wildlife Management Plan," and the actions outlined above, are followed,.

Sincerely,



Lowell H. Johnson  
Manager, Airports Division  
Northwest Mountain Region

Enclosure

cc:

Mr. Jim Repman  
Lone Star Northwest  
5975 East Marginal Way  
Seattle, WA 98134

Ms. Betsy Johnson  
Oregon Aeronautics  
3040 25th Street, NE  
Salem, OR 97310-0107



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

Animal Damage  
Control

2600 SE 98th, Suite 110  
Portland, OR 97266  
Telephone: (503) 231-6184  
FAX: (503) 231-2291

WILDLIFE MANAGEMENT PLAN REVIEW  
FOR  
LONE STAR MINING EXPANSION PROJECT  
SCAPPOOSE, OREGON

EXECUTIVE SUMMARY

Current agricultural, aggregate mining and other land use practices combined with historical migratory bird use around Scappoose Industrial Airpark (SIA) have created a potential bird/aircraft safety hazard.

There will be an overall decrease in the quality of wildlife habitat during the 20-year expansion phase of the project. After the site is completed, a potential exists for birds to use the open water impoundment without effective and consistent habitat management and hazing techniques.

Hazards to aviation currently exist at SIA. The development of an additional 360 areas of mining ponds could increase the wildlife hazard potential. Development of cell 7 is the most critical aspect of this project due to the proximity of the lake shoreline to the runway.

Mitigation measures must be implemented immediately after commencement of the initial expansion phase. In order for hazing to be effective, an active program must be pursued by Lone Star to include an integrated approach. This could include the use of various scare devices, visual and audio deterrents and physical barriers. The development of phase 7 will place the edge of the lake to within 500 feet of the runway. In order for mitigation to be effective, especially after phase 7, it is critical that an on-going and aggressive integrated bird management and hazing program be implemented and occur at the site in perpetuity. The Plan indicates that Lone Star will only support mitigation up to 3 years after completion.

**Recommendations**

- Lone Star should implement a bird hazing program on Pit B and D ponds to evaluate mitigation effectiveness for the development of phases 1-3. This should be made a condition for project approval. We are not aware of plans by Lone Star to implement a wildlife management plan on Pit B and D ponds. These ponds could serve as



effective controls for monitoring and evaluating future conditions on Pit E.

- Lone Star initiate a long term ecological assessment of Pit B and D ponds. Assuming Pit B and D ponds will be completed prior to Pit E, these ponds could serve as a control for monitoring long-term ecological effects on plant and animal life and potential environmental recovery of Pit E.

- Immediately after project approval, Lone Star should organize the Wildlife Review Committee as described in the Plan.

- As a condition of project approval, the Proposed Mine Implementation Plan as described in the Wildlife Management Plan must be adhered to. Phase 1 should be the first cell mined, then phase 2 and so forth. Mining phase 7 first would void much of the proposed monitoring plan.

- If the anticipated results are not achieved as outlined in the Plan after phase 3, excavation into phase 4 should not proceed without the Wildlife Review Committee's review and evaluation of the Plan. This could be a condition of the permit.

- If the anticipated results are not achieved as outlined in the Plan after phase 6, excavation into phase 7 should not proceed without the Wildlife Review Committee's review and evaluation of the Plan. This could be a condition of the permit.

- Alternative crops, such as hybrid poplars, could be planted on the site on cells 4-7 and grown during the excavation of cells 1-3. This would limit bird use on the site.

- The Plan should incorporate additional safeguards to ensure that each compliance bond be monetarily sufficient to maintain a bird management and hazing program in perpetuity and that the bond(s) be transferable upon sale of the site.

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE  
ANIMAL DAMAGE CONTROL (APHIS-ADC)

WILDLIFE MANAGEMENT PLAN REVIEW  
FOR  
LONE STAR MINING EXPANSION PROJECT  
SCAPPOOSE, OREGON

PREPARED FOR  
FEDERAL AVIATION ADMINISTRATION  
NORTHWEST MOUNTAIN REGION

I. Introduction

Lone Star Northwest's proposal to expand its aggregate and sand mining operation at their Santosh Quarry operation has been evaluated by local, state and federal agencies. In response to wildlife concerns raised by these agencies and the public, Lone Star Northwest contracted with EnviroScience, Inc. to conduct an ecological study of the project area. This study included 1) a detailed assessment of wildlife in and adjacent to the area, 2) an evaluation of impacts anticipated from the project proposal and 3) a wildlife management plan to mitigate concerns regarding aircraft safety around the adjacent Scappoose Industrial Airpark (SIA).

In a July 30, 1996 letter, the Northwest Mountain Region, Federal Aviation Administration (FAA) requested APHIS-ADC to conduct a formal review of the wildlife management plan developed by EnviroScience, Inc. for Lone Star's mining expansion. APHIS-ADC and the FAA cooperate under specific terms of the Memorandum of Understanding (MOU) dated April 13, 1989 which authorizes APHIS-ADC to assist the FAA in evaluating wildlife hazards at or near airports.

The most significant issues surrounding the Lone Star Expansion Project are:

1. The potential attraction of waterfowl and other wildlife to the mining ponds created by the development.

2. Potential hazards to aviation utilizing the SIA associated with the development of a 360 acre mining pond near the airport.
3. The effectiveness, adequacy and public acceptability of proposed short and long-term mitigation measures proposed by Lone Star.

## II. Methods

The review of the Lone Star Wildlife Management Plan was conducted by ADC wildlife biologist Rod Krischke and myself using information provided by the Port of St. Helens, EnviroScience, Inc., APHIS-ADC and FAA. The following information was utilized for our review of the Plan:

1. Airport Layout Plan Update of SIA.
2. The Wildlife Evaluation and Impact Assessment developed by EnviroScience, Inc. (Referred to as the Site Study)
3. Wildlife Deterrent Evaluation Report developed by EnviroScience, Inc.
4. APHIS-ADC Airport Safety Manual and Guidelines for conducting biological assessments.
5. APHIS-ADC field and historical wildlife depredation reports for Columbia County.
6. The MOU between FAA and APHIS-ADC, Federal Aviation Regulation (FAR) Part 139, and FAA Advisory Circular No. 150/5200-5A.

A thorough review of the existing biological information presented in Wildlife Evaluation and Impact Assessment (Site Study) was necessary in order to effectively evaluate anticipated impacts and the proposed mitigations. In order to facilitate the review, a field visit to the site was conducted on September 10, 1996 to reappraise the project site, study area and Scappoose Industrial Airpark and to familiarize ourselves with the methodology utilized by EnviroScience biologists to conduct their wildlife evaluation of the project area. In order to effectively

evaluate their survey techniques, we were accompanied by Ms Jennifer Horn, wildlife biologist employed by EnviroScience. Wildlife survey techniques were demonstrated along with a complete tour of the study area.

### III. Results and Discussion

#### Overview of the Site Study

A General Wildlife Survey and an Aquatic Wildlife Survey conducted at the site incorporated commonly used wildlife survey techniques. Another survey used to evaluate bird/aircraft use within the approach zones incorporated a method of sampling designed to calculate bird/aircraft altitude in relation to the airspace within the approach zones.

The general habitat types within each survey area were identified and evaluated with each survey. These evaluations identified resident and migratory birds using the areas during all four seasons of the year. These surveys gathered data relative to:

- Daily and seasonal bird activity patterns.
- Bird use of airspace within the SIA aircraft approach zones.
- Habitat preferences with terrestrial and aquatic habitats.
- Bird use within the existing mining pond habitat.
- Bird use of the habitats within the proposed mining site.

A General Wildlife Survey was used to record bird use within all habitat types in the area. The results of this survey present specific species data according to bird abundance, seasonal variability and utilization of habitat. The European starling and the Canada goose were identified as the most abundant species, followed by a variety of other passerine species such as robins, sparrows and chickadees. Results of this survey are consistent with similar surveys conducted by the Audubon Society and local Oregon Department of Fish and Wildlife (ODFW) and U.S. Fish and Wildlife Service (FWS) biologists.

The wildlife evaluation also identified bird distribution among habitat types, species and seasons of the year. This data suggests that of the eight habitat types, bottom lands, pastures and agricultural lands supported the highest bird densities and mining ponds and cottonwoods/hybrid poplars have the lowest

densities of birds. The data also suggests that habitat types varied in maintaining bird densities during different seasons, while others maintained consistent numbers. This type of habitat use by various bird species is common throughout the region.

A survey was conducted that also analyzed the wildlife use on the proposed mining site and compared these data with data from the General Wildlife Survey. The expansion site consists of 400 acres of pasture and crop land. Species abundance and seasonal usage by various bird species was recorded. Comparison of data from the General Wildlife Survey and that of the proposed mining site demonstrates a reduction in bird use by some species and an increase by others. Canada goose numbers decreased in comparison due to the change in available habitat, while gull numbers appeared to increase. This data suggests that Canada geese prefer other habitat types over that in the proposed mining area and that gulls and starlings utilized these croplands/pasture lands quite frequently.

Wildlife use data was also collected within a diverse range of aquatic habitats, such as irrigation channels, active and inactive mining ponds, local creeks and other wetland areas. Not surprising, their findings reflect typical bird usage and habitat preference for the geographic area. Reported seasonal trends in abundance for waterfowl appear to be very similar with other available survey data. Waterfowl (ducks and geese) were the predominant species, especially during the fall, winter and spring months. Many migratory waterfowl species utilized the bottom lands, old shallow mining ponds and Jackson Creek while the least number of birds utilized the active mining ponds and the less productive irrigation channels.

To evaluate how the airspace was being used by both birds and aircraft, the study sampled bird and aircraft activity within the airspace above the runway and approach zones at SIA. Review of Flight Corridor Survey data illustrates the potential bird hazards to aircraft at SIA. The information presented in the study highlights the attractiveness of certain habitat types within and adjacent to the approach zones. Runway #33's 10,000' approach zone is currently dominated by agricultural areas, bottom lands and pasture which attracts a variety of birds year around. Numbers and occurrences of specific bird species appear to be greater along the approach zone of Runway #33 than Runway



#15. This is largely due to the difference in general habitat types, with Runway #15's approach zone characterized by residential, pasture and woodlands. The potential for bird/aircraft conflicts should decrease with distance from the runway. However, the study's data demonstrates that the potential for bird/aircraft hazards remain constant throughout the approach zones for both runways.

APHIS-ADC field observations support the discussion in the Plan regarding wildlife use around SIA. Birds, especially ducks, Canada geese, gulls and starlings/blackbirds and raptors migrate and winter in the area in large numbers. Agricultural damage by geese is common during the winter and spring months and has been documented by APHIS-ADC. Numerous permanent, summer and winter species of migratory birds were identified during the wildlife assessment conducted by EnviroScience. The numbers reported throughout the study can be supported by recent wildlife surveys by the ODFW and the FWS.

Review of the Site Study identified the following potential impacts from the development of the mining area:

#### Removal of pasture and crop lands.

There will be a gradual reduction of the existing habitat on the 400 acre expansion site due to the time line for phasing in each mine cell development. Canada geese, starlings, and gulls will be displaced onto adjacent habitat. We believe that the impact will be minimal due to the abundance of similar habitat within the surrounding area.

#### Development of mining ponds.

The mining implementation plan calls for the phasing of the first ponds farthest from the airport. During the 20-year development period, a small lake (360 acres) will be created. In an attempt to estimate changes in bird numbers on the site due to the habitat transition, the study compared the survey results from the existing mining ponds and the proposed mining area. The data suggests that there would a 28% reduction in the species using the site. We believe that the alteration of the existing pasture and fields to active mining ponds would result in an immediate reduction of bird densities, primarily Canada geese, gulls and

starlings. However, these birds could continue to use the area during the transition and development. It is impossible to determine the attractiveness of the mining ponds years after development. Natural improvement of the water quality will eventually enhance these ponds, allowing plant and animal life to slowly recover.

#### Impacts to adjacent habitats and wildlife

We agree with the statement in the study that suggests the species currently using the proposed site for feeding/loafing would be displaced to adjacent habitats and the effects of this transition would be gradual and present minimal impacts to the area. We also concur with the study in that the transition from the existing habitat to mining pond habitat will likely result in a reduction of wildlife on the site and that fields and pastures should have a consistently higher bird density than mining ponds.

#### Impacts to the flight safety approach zones.

The study states that "the displacement of feeding habitat for the species which currently use the proposed mining area is not expected to represent a significant impact to the existing use of the flight corridor or represent a higher risk to airport operations." Evaluation of flight patterns of dominant species indicate that the majority of bird flights occur to the south, east and north of the approach zones. Existing habitat west of SIA limits bird movement across the approach zones. However, the study clearly describes frequent bird use within these zones for Runways #33 and #15. [We do not totally agree with the above statement and believe that the data presented indicates displaced birds (waterfowl, gulls and starlings) from the proposed mining area could utilize those habitats within the approach zones.]

#### Overview of the Wildlife Management Plan

The Wildlife Management Plan for the Lone Star Mining Expansion Project follows FAA guidelines for wildlife hazard management plans. The basic purpose of the Plan is to mitigate the concerns relative to the development of the mining expansion site and potential impacts to aircraft using SIA. The Plan includes a

discussion of the existing biological conditions and impacts associated with the proposed site expansion.

#### A. Mitigations

##### Habitat Manipulation

The Plan discusses the implementation of habitat management actions to reduce the attractiveness of the newly-developed mining ponds and the existing pastures and fields within the proposed mining area. It outlines an approach to modifying the existing habitat conditions on the proposed mining site. Plans call for developing the shoreline of newly created ponds that will discourage vegetation growth and waterfowl access. The control and removal of vegetation periodically along shorelines will discourage the development of habitat preferred by many species of birds and mammals.

The open water of active mining ponds provide minimal habitat for waterfowl and other birds. Turbidity, absence of vegetative and animal production and frequent disturbance make these areas less attractive to waterfowl. During the development phase, existing pastures and fields in the proposed mining area are planned to be managed to exclude bird use. The existing croplands adjacent to SIA would be converted to alternative crops less attractive to wildlife. The Plan also recommends that grass heights be kept constant on and around the airport and fertilization be eliminated where possible to discourage invertebrate-eating birds such as gulls and starlings.

##### Wildlife control techniques

Wildlife control techniques including human patrols equipped with scare devices, noise-making devices, wires and netting and chemical modification techniques are proposed in the Plan. Vehicles, boats and foot patrols are recommended to disperse waterfowl using the open water. Propane exploders, various pyrotechnics and bioacoustics (natural bird distress calls) are planned to be implemented.

The application of ReJex-it (Methyl anthranilate), a chemical developed to repel gulls and waterfowl, is proposed for use on the mining ponds. The current label and use instructions

approved by the Environmental Protection Agency (EPA) suggest ReJex-it could be applied to the surface water of the mining pond. However, certain restrictions would have to be adhered to in order for the application to be safe to the environment.

After each development phase, physical barriers such as overhead wires, netting, floats, and other deterrents are planned to be integrated and monitored on the active mining pond. Grid systems with suspended wires at various heights over the water are planned to be implemented and maintained throughout the various phases of the project.

#### B. Implementation and Monitoring

Implementation and monitoring of the Plan is proposed to be conducted during the three phases of mine development: pre-operational, operational, and post-operational.

##### Pre-operational phase

The pre-operational phase was designed to test the effectiveness of the proposed wildlife control techniques on the existing mining ponds. Habitat management and wildlife dispersal techniques were implemented and evaluated to determine efficacy of preventing waterfowl use of the open water habitat during active mining operations. These tests were conducted on Pond C within mining Pit B. A Wildlife Deterrent Evaluation Report was published in January 1996 to fulfill the requirements of the Pre-operational phase as outlined in the Plan.

##### Operational phase

This phase is designed to establish a project review (advisory) committee that would provide oversight and review of the Plan's effectiveness in accomplishing the identified objectives. The advisory committee consists of adequate representation to assist in the oversight function of monitoring the operational phase. The wildlife committee would evaluate the implementation of the Plan and identify problems over the course of the project.

## Post-operational phase

This phase is designed to ensure that the long-term risk to SIA is mitigated after completion of the project expansion. This phase considers both situations in which SIA is operational and non-operational. Given the SIA's updated Layout Plan and projected growth, the plan to minimize bird use would most likely be implemented. The long-term plan includes the use of overhead wires and net grid system integrated with floating devices. Lone Star would acquire a compliance bond to ensure implementation of this post-operational phase.

## IV. Recommendations and Conclusions

There are valid concerns for aircraft and passenger safety at SIA:

1. The SIA is located in prime waterfowl habitat bordered by the Columbia River, Sauvie Island State Wildlife Area, Ridgefield National Wildlife Refuge, private wetland areas and abundant agricultural lands. This area is subject to seasonal flooding, providing additional aquatic habitat that enhances migratory bird activity.
2. The Port of St. Helens' Airport Layout Plan Update clearly defines anticipated aircraft operation growth within the next 20 years. The number of based aircraft, take offs and landings and the number and types of critical aircraft utilizing the SIA is expected to increase in the future.
3. The Lone Star Expansion Project would increase its operation on an additional 400 acres located adjacent to the SIA, of which approximately 360 acres of agriculture/pasture lands would be converted to an aquatic mining pond habitat within close proximity of SIA.

## Issue Mitigation

- Issue 1. The potential attraction of waterfowl and other wildlife to the mining ponds created by the development.

The Wildlife Evaluation and Impact Assessment (Site Study) demonstrates the significance of SIA's location in relation to the regional and local area wildlife habitat. Current land use patterns and habitat types on the lower Columbia River and surrounding SIA make the area extremely attractive to large waterfowl populations. The study concludes that waterfowl use will decrease on the proposed expansion mining site. We believe that most waterfowl, gulls, starlings and other birds will be displaced and forced to utilize other suitable adjacent habitat.

The wildlife use (habitat) values of the mining ponds will be very low during the development and early post-operational stages as compared to surrounding habitat. However, the attractiveness of abandoned deep pit aggregate mines to wildlife could likely increase overtime if water quality improved and aquatic vegetation and animal life became established. We believe that an additional monitoring objective could be incorporated into the Plan that would evaluate recovery of existing Lone Star mining ponds. Mining ponds within pits B and D, for example), could be used as a control for evaluating natural succession of plant and animal recovery and effectiveness of habitat and wildlife control techniques.

Bodies of water around airports are generally considered a negative influence to aircraft safety because they attract birds and other wildlife, especially in areas where water is a limiting factor for wildlife. However, we believe that in the area of SIA, the lake that will be created from existing agricultural lands constitutes a tradeoff between the limited agricultural lands used for feeding and the abundant water habitat. Because of changing agricultural crop practices, ie pasture lands being converted to hybrid poplars, quality feed is a limiting factor in the area, especially to Canada geese and other waterfowl. After each development phase, physical barriers such as overhead wires, netting, floats, and other deterrents are planned to be integrated and monitored on the active mining pond.

Issue 2. Potential hazards to aviation utilizing Scappoose Industrial Airpark associated with the development of a 360 acre mining pond.

A simple definition of a "potential wildlife hazard" is any instance when a bird or mammal enters an airports' approach

safety zone. Based on the information presented in the Site Study, migratory bird historical use patterns on and around SIA, and projected airport and surrounding land use strategies, the potential wildlife hazard around SIA will increase. Given the close proximity of the new lake to SIA after full-development, effective mitigation measures are critical in reducing bird use and alleviating potential bird/aircraft conflicts.

Issue 3. The effectiveness, adequacy and public acceptability of proposed short and long-term mitigation measures proposed by Lone Star.

Immediately after project approval, Lone Star should organize the Wildlife Review Committee described in the Plan. The Committee should then meet with Lone Star and review all details of the Plan prior to phase 1 implementation.

The phasing of pond construction is planned to proceed from Phase 1 through Phase 7, with Phase 1-3 farthest away from the airport. The development of these first 3 phases will create the least amount of impacts to the airport because the edge of the mining pond to the runway will be approximately 2,300 feet. Also, smaller size bodies of water are easier to implement effective mitigation measures. The Plan calls for the Wildlife Review Committee to evaluate bird deterrents being used and how effective the overall Plan is working. This evaluation is proposed to occur simultaneously with the mining operation during the first three phases. If the anticipated results are not achieved as outlined in the Plan, then the Wildlife Review Committee should thoroughly review and evaluate the Plan. Provisions in the permit from Columbia County could require Lone Star to implement changes in the Plan prior to allowing further excavation into Phase 4.

Site development of Phases 4-6 will expand the lake closer to the airport (approximately 1,700 feet from the runway). The mining plan calls for setbacks or buffer sections from the proposed excavation area of 200 feet from residential property and 50 feet from all other property types after the completion of Phase 7. The Plan indicates that these buffer areas will maintain existing habitat conditions. We believe that all setbacks must be managed in such a manner that is least attractive to wildlife. Wildlife control techniques (hazing) generally becomes less effective as

the size of the body of water increases. If the anticipated results are not achieved as outlined in the Plan after Phase 6, then the Wildlife Review Committee should again review and evaluate the Plan with approval required prior to permitting excavation into Phase 7.

The combination of a habitat manipulation plan and use of an integrated approach with various wildlife control techniques is a sound wildlife damage management strategy for reducing the attractiveness of the area to wildlife. The wildlife damage control scientific literature suggests that large bodies of water can be effectively excluded from birds if done properly. Namely, overhead wires and netting have been successfully evaluated in similar situations, but due to the size of lake that will be created after phase 7, it is very important that a combination of techniques be implemented and maintained in perpetuity to ensure that bird use is kept to a minimum. Additional techniques, such as overhead wires, floating netting systems with balloons and the use of various pyrotechnics could be demonstrated at the existing site to determine mining operation acceptance, efficacy and public acceptability.

During the development phase of the project, alternative crops could be planted on the site which are less attractive to waterfowl. Hybrid poplars, Christmas trees or nursery stock are examples of economically feasible crops that are alternatives to those currently being cultivated.

Post-operational performance as outlined in the Plan does not guarantee any mitigation monitoring past three years. A compliance bond would be established to ensure deterrents are maintained. We believe that the Plan should incorporate additional safeguards to ensure that each bond will be monetarily sufficient to ensure Lone Star or future owners will maintain an operational hazing program and site monitoring and mitigations in perpetuity, and there are requirements for the compliance bond to be transferrable upon sale of the site.

## V. Summary

The Wildlife Evaluation and Impact Assessment (Site Study) completed by EnviroScience, Inc. for the proposed expansion for Lone Star Northwest's aggregate and sand mining operation



documented a variety of wildlife habitat types conducive to attracting and supporting a variety of wildlife species. The Wildlife Management Plan submitted by Lone Star Northwest to mitigate this project provides a basis for addressing many concerns and issues.

The location of the project site is in a traditionally high use migratory bird migration corridor. The geographic location of the area is extremely attractive to large concentrations of birds, especially during spring, fall and winter as evidenced by the number and location of wildlife refuges and migratory bird hunting clubs.

The bird/aircraft hazard in the lower Columbia River corridor has been documented for many years. Local airports and aviators are well aware of the potential hazard wildlife present to aviation. The Scappoose Industrial Airpark's Layout Plan Update describes the current and growing use of the of the airport. The Scappoose Industrial Airpark is faced with an increasing wildlife/hazard problem due to current agricultural use adjacent to and surrounding the airport and with future aggregate mining expansion.



Transcription of selected portions of the presentation of Mr. Ron Rathburn ,  
Enviro-Sciences, Inc., to the Columbia County Planning Commission on  
November 13, 1996.

(Addressing previously raised concerns regarding the use of a chemical to  
deter birds known as Rejx-it [sp?]) Beginning of Tape 5A of Land  
Development Services staff recording, 11/13/96.

Mr. Rathburn: From that standpoint, I want to clarify the issue. Rejx-it is  
going to be removed and will not be a part of the active Wildlife Management  
Plan. Because I believe your concerns as well as I do not feel at this point in  
time has not been fully approved by the EPA. But we included it because it  
was highly regarded by the airport managers throughout the United States as  
something that would be worthwhile to be considered.

So let me talk about the Wildlife Management Plan as we have proposed and  
prepared. . uh,m which we feel again I will repeat, is flexible. The most  
important part of it is a habitat manipulation program so for the most part  
what we are going to be doing is altering and maintaining habitat conditions  
around the ponds that are not attractive to feeding or nesting. These are the  
major attractants to \* \* \* and to any kind of hazards around airports. We feel  
that this is a very . . . it is a passive tool and it is very, very effective and  
Europe uses it a lot. They don't use it as much in the United States, but it is a  
very effective tool. And it is my consideration, and I've gone to different  
meetings, there is no identified problem as we look and compare\* \* \*  
constitutes the proposed bird activity that exists now. We will have a  
reduction in birds. But that is not adequate. We want to provide more  
protection, and more protection means that we're going to alter the habitat  
conditions and we feel that will even reduce the birds even significantly than  
is presently exist now. OK, that is one part of it. And of course you've heard  
of pyrotechnics and all these other and nets and all these techniques are tools.  
OK. You don't have to use them. There's an awful lot of different  
combinations that can be utilized. And it is my feeling quite frankly, that the  
habitat manipulation will probably manage most of any, or reduce should I  
say, the birds by at least another fifty per cent. Again improving the safety  
relationship to the airport operations.

Before we go around indicating and overreacting to the idea that birds. . . that ponds are negative, from the standpoint that comparing ponds to agricultural fields, ponds are definitely a more positive consideration. Now I also want to tell you another technique that can be utilized and has been utilized and is effective and that is within the ponds and as these ponds grow. . . get bigger. If there is the need, you can create islands; artificial islands that float out on those ponds there so you don't have, you don't have the safety issue with birds. And the what it does that interferes with the flight pattern. We at Envrio-Science choose to work with techniques that are sensitive to wildlife. We believe that habitat manipulation is a very effective tool and you just have to really work with the habitat and you work with the behavior of birds. And so you can reduce issues of \* \* \*

(Mr. Rathburn discusses the proposed mining phases. He represents that Phases 1, 2, & 3 are well beyond the FAA 10,000 foot limitation; that there would be an independent committee to determine or advise which tools should be used.)

And the effectiveness of the tools which the FAA has approved, is our tools to pull out of our back pocket. They are tools that have been effectively used throughout the United States as well as in Europe. And so we don't feel that we're going to be moving to putting nets out there. That's something, you know, that is a combination that could possibly be utilized as a tool. We feel that the islands and we feel that the habitat manipulation, uh, would be more than effective than what's required. I don't personally feel based on this upon year's data that it will be required. Now another check and balance. In addition to this (Pointing to chart displaying mining Phases?) that you've got development along this side, we will demonstrate to you how it works and that it is effective and it will work and there won't be any of the issues that have been identified, uh, by opponents tonight. Uh. And I. . . Is that we're going to maintain an on-going monitoring program. We're not stopping here and saying that, well we collected one year's of data here before we draw this conclusion. We're going to maintain an on-going sampling, to make sure that these birds are not increasing. And if we are, the committee will have an opportunity to evaluate and the mitigation we propose will be utilized to reduce those levels. Again, it us assisting to reducing the safety to the airport operations.

(Mr. Rathburn discusses the bonding issue and the issue of "perpetuity")

So I want to stress again to you that the issues we are proposing to you are not lethal. A very important, I think, consideration from my standpoint uh, . . . I think that, uh, I think that the plan I think that you have a little more clarity in terms of what, uh, the plan that we propose. I just want to reinforce that it was reviewed by the US Animal Damage Control. . . they had some very good recommendations and those recommendations were submitted to the FAA and the FAA, in the letter that you have, indicated, uh, they are in full agreement with our plan with the additional, uh, mitigation options which, which they have added which \* \* \* and Lone Star Northwest has therefore supported, making this a very effective wildlife management plan.

I want to touch upon one thing. Uh, \*\*\*the previous, the Port of St. Helens is one very important issue that was brought up uh, regarding airport safety. The airport has the responsibility, uh, of insuring the Port's protective of the safety of the airport's operations. I would like to say to you, that uh, the proposed wildlife management plan here, uh, could be an effective tool in managing its, one of the issues which was presented by uh, the US Animal Damage Control is that it is, is that this program needs to be expanded northward to include the runway which quite frankly are unsafe, and the, uh, Lone Star Northwest is willing to expand this particular wildlife management program to include the, the runway, particularly runway at thirty-three where there's hunting issues and there's habitat conflict issues there. What it proves is that there is even further existing risk to the airport operations.

So in conclusion, let me say that we have developed a plan that is sensitive, and I think is technically competent as available in the United States to protect this community. Uh, and uh, I think the information here stands on its own. Thank you.

Q. (From unidentified member of the Planning Commission) I have a question about the chemical whether it's going to go down. . . I didn't hear an answer.

Mr. Rathburn: OK. I will answer you. We are not using that chemical.

Q. But you're going to leave it in the plan so it possibly could.

Mr. Rathburn: No we are not leaving it in the plan. We are taking it out of the plan. And the chemical floats, by the way.

Q. Have you got that in writing someplace?

Mr. Rathburn: Yes, it probably will be.

Q. Now? Will it be submitted now, that it's taken out?

Mr. Rathburn: I think it will be submitted\* \* \*can be submitted to you. Uh, I think it is an appropriate consideration that the wildlife committee that is being proposed will be \*\*\* as a group from the FAA \*\*will be approving the techniques\*\*\*that will be utilized and if the EPA has not approved it definitely will not be used. But we are proposing to remove that from, um, the plan itself.



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

Animal Damage  
Control

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Portland, OR 97266  
Telephone: (503) 231-6184  
FAX: (503) 231-2291

December 10, 1996

Mr. Jeffrey VanNatta  
Chairman  
Columbia County Planning Commission  
Columbia County Courthouse  
St. Helens, OR 97051

DEC 12 1996

Subject: Lone Star Northwest's Proposed Aggregate Application for  
Mining Operation Expansion

Dear Chairman VanNatta:

The purpose of this letter is to clarify USDA, APHIS-Animal Damage Control's position regarding information recently submitted to the Commission relative to Lone Star's Northwest Aggregate Application and the proposed Draft Conditions of Approval.

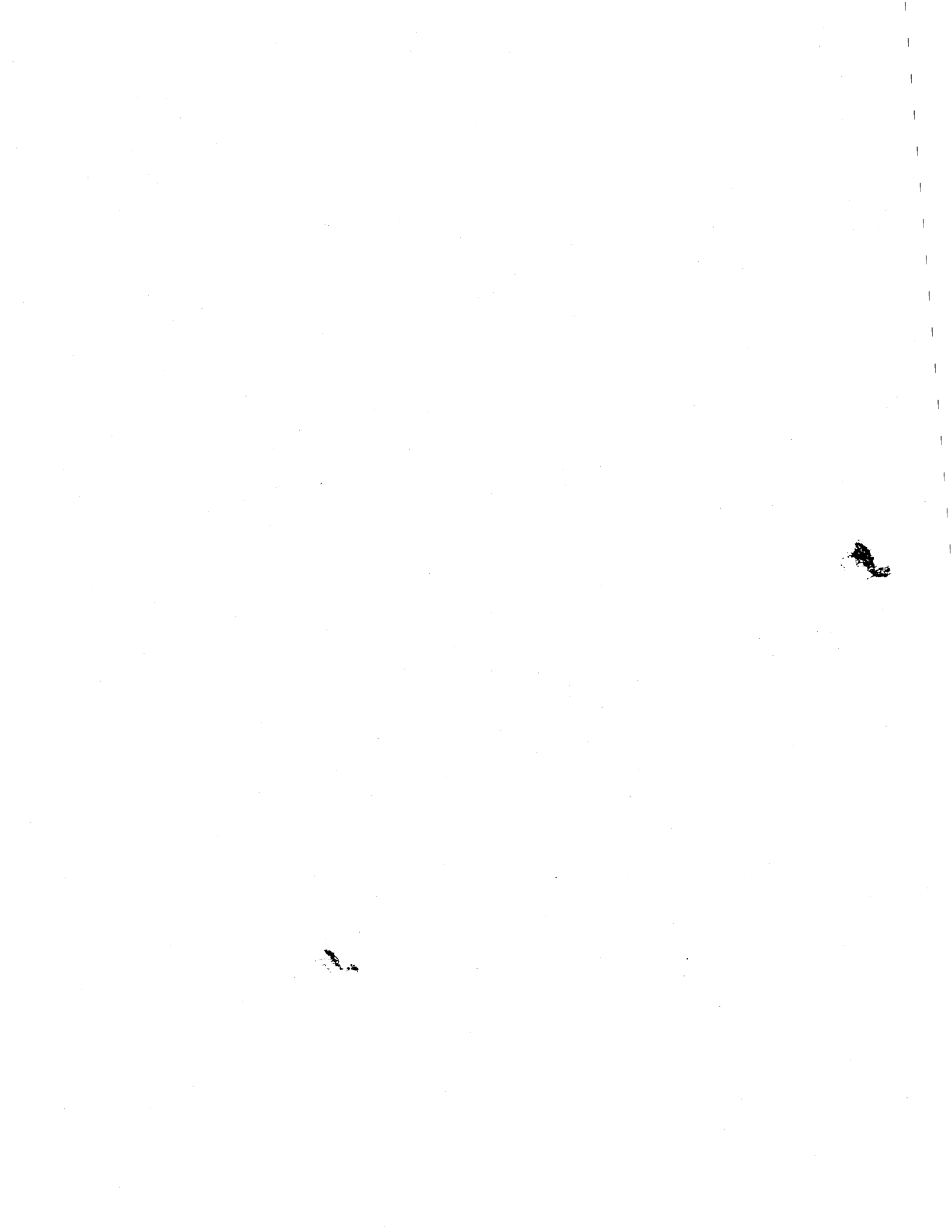
As you are aware, our agency, at the request of FAA, conducted a formal review of Lone Star's proposed wildlife management plan. Our review contained several recommendations that would help mitigate any major concerns regarding potential bird hazards to aviation at the SIA created by the proposed mine expansion. In an October 17, 1996 letter from FAA to Mr Joe. R. Yarbor, Columbia County Board of Commissioners, FAA concurred with our findings and recommendations. We agree with FAA that Columbia County, rather than Lone Star, should organize and manage the Wildlife Review Committee. We continue to fully support our initial recommendations and those from FAA.

Since the last public hearing, a substantial amount of information has been provided to your Committee. Specifically, I am referring to an Affidavit of Mark J. Greenfield's telephone conversations with me on November 25, 26, and 27, revisions to Lone Star's Draft Conditions of Approval dated December 9, 1996 (copy attached) and EnviroScience's clarification of the ReJex-It issue (copy attached).

Mr. Greenfield is mostly accurate in his recollection of our conversations. However, item number 7 in his Affidavit is inaccurate. I stated to Mr. Greenfield that I believed proposed Condition 16 is intended to fully implement the recommendations of ADC and FAA. Mr. Rathburn of EnviroScience did not make that statement. Also, item number 1 is not totally accurate. On November 25, Mr. Rathburn and I discussed the wildlife management plan and the need to keep the chemical ReJex-It in the plan. He said that they might have to remove it because of public opposition. I recommended that ReJex-It remain a viable option for future use. All other aspects of my conversations with Mr. Greenfield are accurate.



APHIS—Protecting American Agriculture



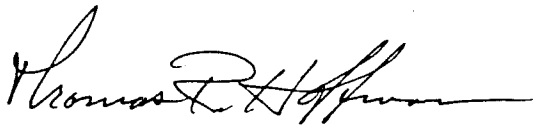


Lone Star's recent clarification of their position concerning draft conditions of approval 16 and 29 are consistent with the Wildlife Management Plan, ADC's and FAA's recommendations. The changes in condition 29 will provide all interested parties, to include ODOT and the Port of St. Helens, full participation on the Wildlife Review Committee and allow an objective review of bird control methods for future use. A balanced Wildlife Review Committee, as proposed by Lone Star, is critical for accurate and timely monitoring of the wildlife management plan. The Wildlife Review Committee can provide the necessary oversight to ensure that an aggressive and on-going integrated bird management program is properly implemented.

As discussed with Mr. Rathburn, ADC does not support removing the chemical ReJex-It from the wildlife management plan. However, we do understand the reasoning behind their decision. EnviroScience's correspondence to you dated December 9, 1996 clarifies this issue.

In closing, we agree with FAA's evaluation of the proposed mine expansion and believe that the aircraft safety and efficiency of SIA should not be adversely affected if the mitigation measures outlined in the Plan and those by ADC are followed with oversight and coordination of the Wildlife Review Committee.

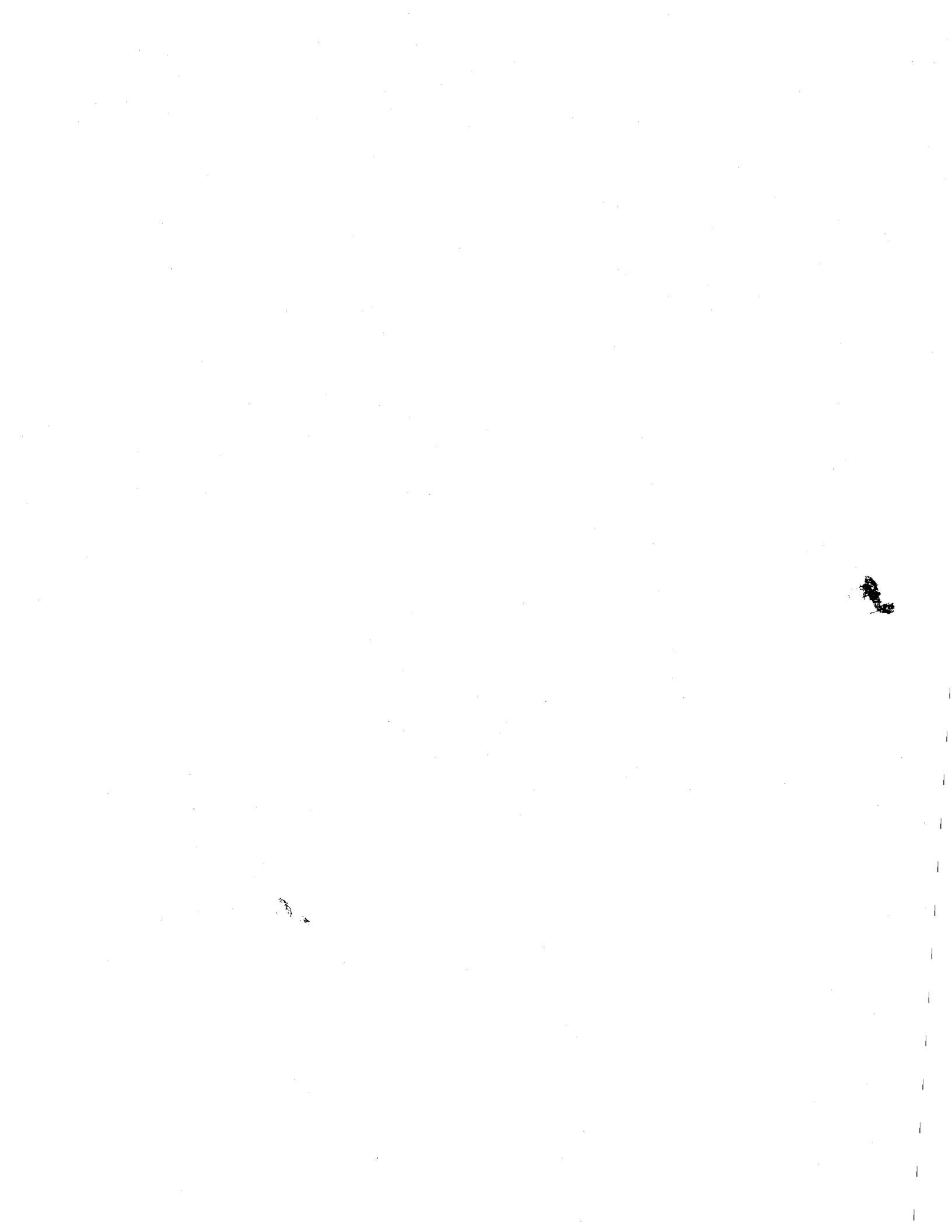
Sincerely,



Thomas R. Hoffman  
State Director

Enclosures

cc: Lone Star Northwest  
Port of St. Helens.  
FAA, Seattle





U.S. Department  
of Transportation

**Federal Aviation  
Administration**  
February 15, 1995

Seattle Airports District Office  
1601 Lind Avenue, S.W.  
Renton WA 98055-4056

*Airport Advisory  
Board*

*f/AIRPORT  
ALP Update*

Ms. Shirley J. Parsons  
Operations Manager  
Port of St. Helens  
P.O. Box 598  
St. Helens, OR 97051

Dear Ms. Parsons:

The updated Scappoose Industrial Airpark Airport Layout Plan (ALP), prepared by W & H Pacific, and bearing the signature of Mr. Peter K. Williamson, is approved. The ALP reflects as-built conditions, previously approved plans for future development, and the newly-planned land acquisition for facilities expansion and encroachment protection. A signed copy of the approved ALP is enclosed. The updated aviation demand forecasts, as contained in Table 1-10 of the draft Airport Layout Plan Update report, are also hereby approved and accepted for Federal Aviation Administration (FAA) purposes. Please send 2 copies of the final report when it is available.

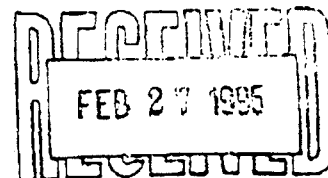
The ALP approval considers only the safety, utility, and efficiency of the airport, and it is conditioned on acceptance of the plan under local land use laws. We encourage appropriate agencies to adopt land use and height restrictive zoning based on the plan since action toward this end is a prerequisite of the Airport Improvement Program (AIP).

Approval of the plan does not indicate that the United States will participate in the cost of any development proposed. When airport construction, alteration, or deactivation is undertaken, such action requires notification and review in accordance with the provisions of Part 77 and Part 157 of the Federal Aviation Regulations.

Please attach this letter to the Airport Layout Plan and retain it in the airport files for future use under the Airport Improvement Program. We wish you great success in your plans for the development of the airport.

Sincerely,

J. Wade Bryant  
Manager, Seattle Airports  
District Office



Enclosure

cc:  
Elizabeth Johnson, Oregon State Aeronautics  
Chris Corich, W & H Pacific



10-25-96

BEFORE THE PLANNING COMMISSION  
OF COLUMBIA COUNTY, OREGON

In the Matter of an Application by Northwest	)	
Aggregates, Inc., a subsidiary of Lone Star	)	PA 4-96, 5-96 and 6-96
Northwest, Inc., for a Plan Amendment and Zone	)	
Change from Rural Residential, Rural Industrial	)	AFFIDAVIT OF
and Agriculture Resource to Surface Mining	)	MARK J. GREENFIELD

I, Mark J. Greenfield, being duly sworn, do depose and say that:

I am the attorney representing the Port of St. Helens in the above-captioned matter.

On November 25, 26 and 27, 1996, I spoke by telephone with Thomas Hoffman, State Director, Animal Damage Control, regarding the proposed Wildlife Management Plan prepared by EnviroScience, Inc., that Mr. Hoffman and Animal Damage Control had reviewed at the request of the Federal Aviation Administration. We discussed comments that Mr. Ron Rathburn, EnviroScience, Inc., had made at the November 13, 1996 Planning Commission public hearing regarding implementation of this Wildlife Management Plan, and certain proposed conditions of approval submitted by the applicant regarding the implementation of the Wildlife Management Plan. To the best of my knowledge and recollection, Mr. Hoffman told me as follows:

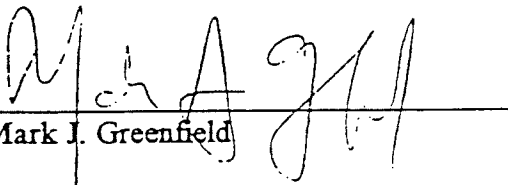
1. That at a meeting he attended with Ron Rathburn on Monday, November 25, 1996, Mr. Rathburn informed him that Rejex-It would remain a part of the Wildlife Management Plan. However, subsequent to that meeting and upon receiving communication from Columbia County, Mr. Rathburn told him that Rejex-It would be removed from the Wildlife Management Plan.
2. That Animal Damage Control wants EnviroScience to reconsider the use of Rejex-It in a few years because it is effective, as demonstrated on catfish farms in the South. Mr.



Hoffman stated that if Animal Damage Control is on the Wildlife Management Committee, it will continue to push for the potential use of Rejex-It.

3. That while Mr. Rathburn does not like it, lethal control (i.e., killing of birds) will remain an element of the Wildlife Management Plan, to be used if needed as a last resort.
4. That as recommended by Animal Damage Control, netting, cables, pyrotechnics, noise makers and other scare devices identified in the Wildlife Management Plan will remain part of that plan and be available for use to control wildlife, even though EnviroScience intends to concentrate on habitat management.
5. That the Port of St. Helens needs to be part of the Wildlife Management Committee.
6. That he has problems with the provision in proposed Condition 29 allowing Lone Star to accept or reject recommendations of the Wildlife Management Committee at its sole discretion. Mr. Hoffman explained that the Wildlife Management Committee provides oversight and guidance to the project, including analysis of the effectiveness of mitigation, and it must be able to recommend the most wide array of methods that can be used.
7. That Mr. Rathburn stated that proposed Condition 16 is intended to fully implement the recommendations of Animal Damage Control and the Federal Aviation Administration.

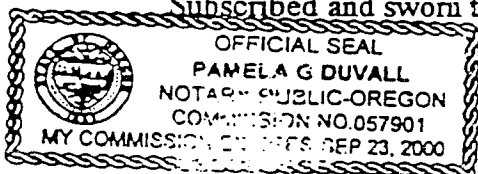
DATED: November 27, 1996


  
Mark J. Greenfield

STATE OF OREGON )

County of Multnomah )

Subscribed and sworn to before me this 27th day of November, 1996.



  
Notary Public for Oregon  
My commission expires: 9-23-2000





# STOEL RIVES LLP

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December 9, 1996

STEVEN W. ABEL

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**DELIVERED BY HAND**

Mr. Thomas R. Hoffman  
Oregon State Director  
USDA-APHIS-ADC  
2600 SE 98th, Suite 110  
Portland, OR 97266

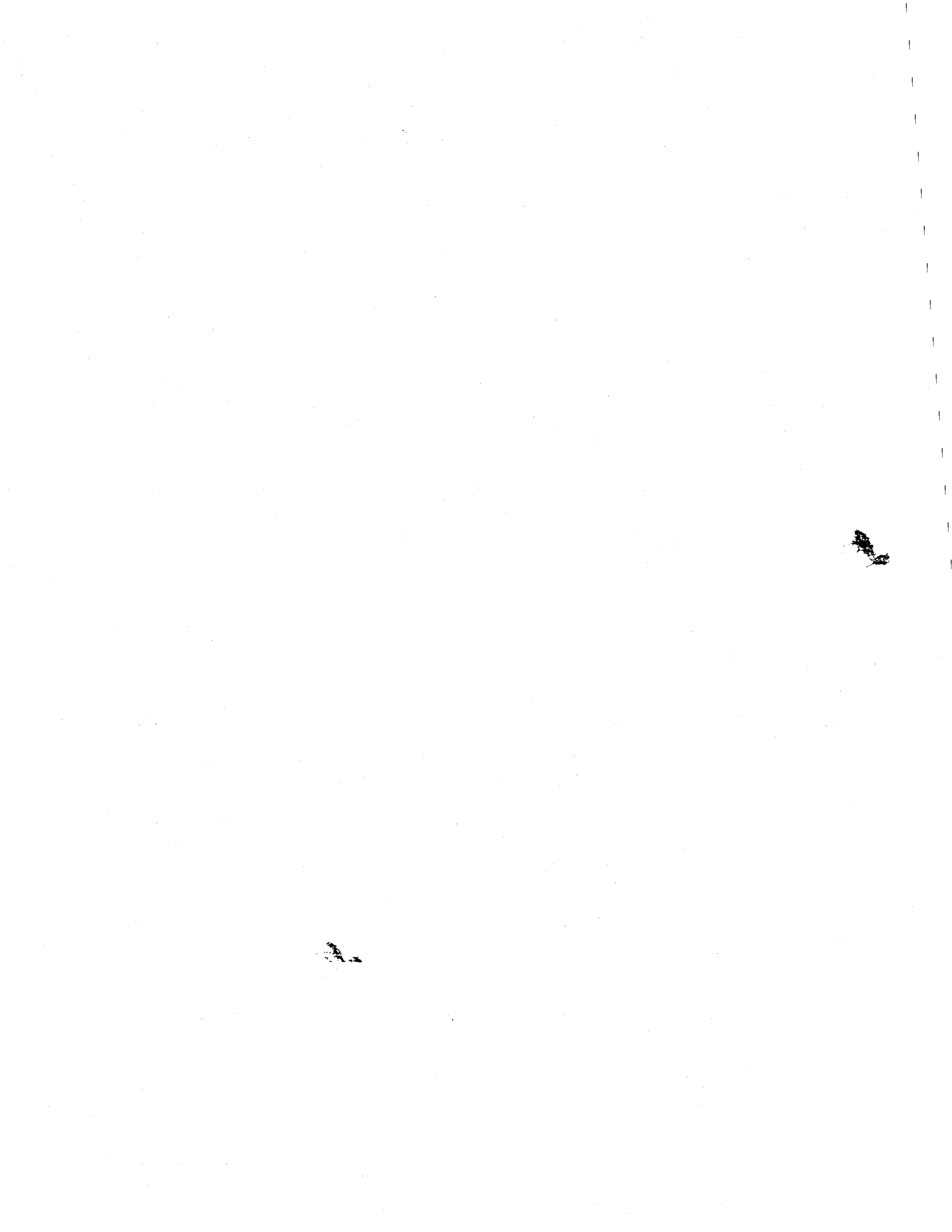
**Re: Lone Star Northwest Columbia County Mine Extension: Draft Conditions of Approval**

Dear Mr. Hoffman:

I am writing to clarify Lone Star's position concerning draft conditions of approval 16 and 29. These conditions are included in draft conditions related to the above-referenced project which Lone Star submitted to the Columbia County ("County") Planning Commission ("Planning Commission") on October 30, 1996.

With respect to Condition 16, on October 17, 1996 FAA Regional Airports Division Manager Lowell Johnson wrote to the County to state FAA's position regarding the Lone Star project. The FAA's letter is based on a review of the "Wildlife Evaluation and Impact Assessment, Wildlife Management Plan and Report Summary" prepared by EnviroScience, Inc. and comments made by Animal Damage Control ("ADC") in its September 23, 1996 report to the FAA. Among other things, the FAA recommends that Columbia County organize and manage the Wildlife Review Committee (the "Committee") identified in the Wildlife Management Plan (the "Plan") and referenced in the ADC's September 23 report. In pertinent part, the ADC report provides:

"Immediately after project approval, Lone Star [the FAA substituted Columbia County] should organize the Wildlife Review Committee described in the Plan. The Committee should then meet with Lone Star and review all details of the Plan prior to phase 1 implementation." ADC report at 11.



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Mr. Thomas Hoffman  
December 9, 1996  
Page 2

In pertinent part, the Plan recommends the following with respect to the Committee:

“ \* \* \* Lone Star Northwest will be responsible for the wildlife control program and will use a review committee to provide technical assistance \* \* \* Prior to commencement of the mining operations, a wildlife review committee will be established to evaluate the monitoring objectives, assess the results of the management plan and provide recommendations to Lone Star Northwest. This review or advisory committee will include the following members:

“Federal Animal Damage Control  
“Oregon Aviation & Aeronautics Division  
“Port of St. Helens  
“Lone Star Northwest, Inc.  
“EnviroScience, Inc.”

Plan at 23.

To clarify its original intent Lone Star will suggest that Condition 16 be deleted in its entirety and replaced with the following new draft Condition 16:

“The Wildlife Management Plan prepared by EnviroScience and included in Lone Star’s application shall be implemented. As part of that implementation, the County shall establish the Wildlife Review Committee and call a meeting of the Committee to review the details of the Wildlife Management Plan within thirty (30) days after the date of this decision by the Board of Commissioners. Thereafter and periodically during the duration of the Pit E mining operation, the Wildlife Review Committee shall evaluate the monitoring objectives, assess the results of the management plan and provide recommendations regarding the Pit E mining operation to Lone Star Northwest. The County shall appoint the members of the Wildlife Review Committee including, at a minimum, a representative from each of the following: (1) the U.S. Department of Agriculture, Animal Damage Control; (2) the Oregon Department of Transportation, Oregon Aviation & Aeronautics Division; (3) the Port of St. Helens; (4) Columbia County; (5) EnviroScience, Inc. and (6) Lone Star Northwest, Inc.

To be consistent with the change to draft Condition 16 set forth above, Lone Star will also suggest that Condition 29 be deleted in its entirety and replaced with the following new draft Condition 29:



STOEL RIVES LLP

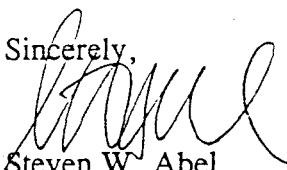
Mr. Thomas Hoffman  
December 9, 1996  
Page 3

“Within thirty (30) days after the date of this decision by the Board of Commissioners, the County shall establish a Wildlife Review Committee and call a meeting of the Committee to review the details of the Wildlife Management Plan. Thereafter and periodically during the duration of the Pit E mining operation, the Wildlife Review Committee shall evaluate the monitoring objectives, assess the results of the management plan and provide recommendations regarding the Pit E mining operation to Lone Star Northwest. The County shall appoint the members of the Wildlife Review Committee including, at a minimum, a representative from each of the following: (1) the U.S. Department of Agriculture, Animal Damage Control; (2) the Oregon Department of Transportation, Oregon Aviation & Aeronautics Division; (3) the Port of St. Helens; (4) Columbia County; (5) EnviroScience, Inc. and (6) Lone Star Northwest, Inc. In accordance with the provisions of the Wildlife Management Plan, Lone Star shall be responsible for the wildlife control program and the Wildlife Review Committee shall provide an objective forum to review the bird deterrent work, monitoring program and effectiveness of the Wildlife Management Plan.”

These proposed changes to the draft conditions of approval will be included in Lone Star's December 18, 1996 submission to the Columbia County Planning Commission. We will provide you a copy of that submission.

If you have any questions about this letter or any other matter related to Lone Star's application, please don't hesitate to contact me.

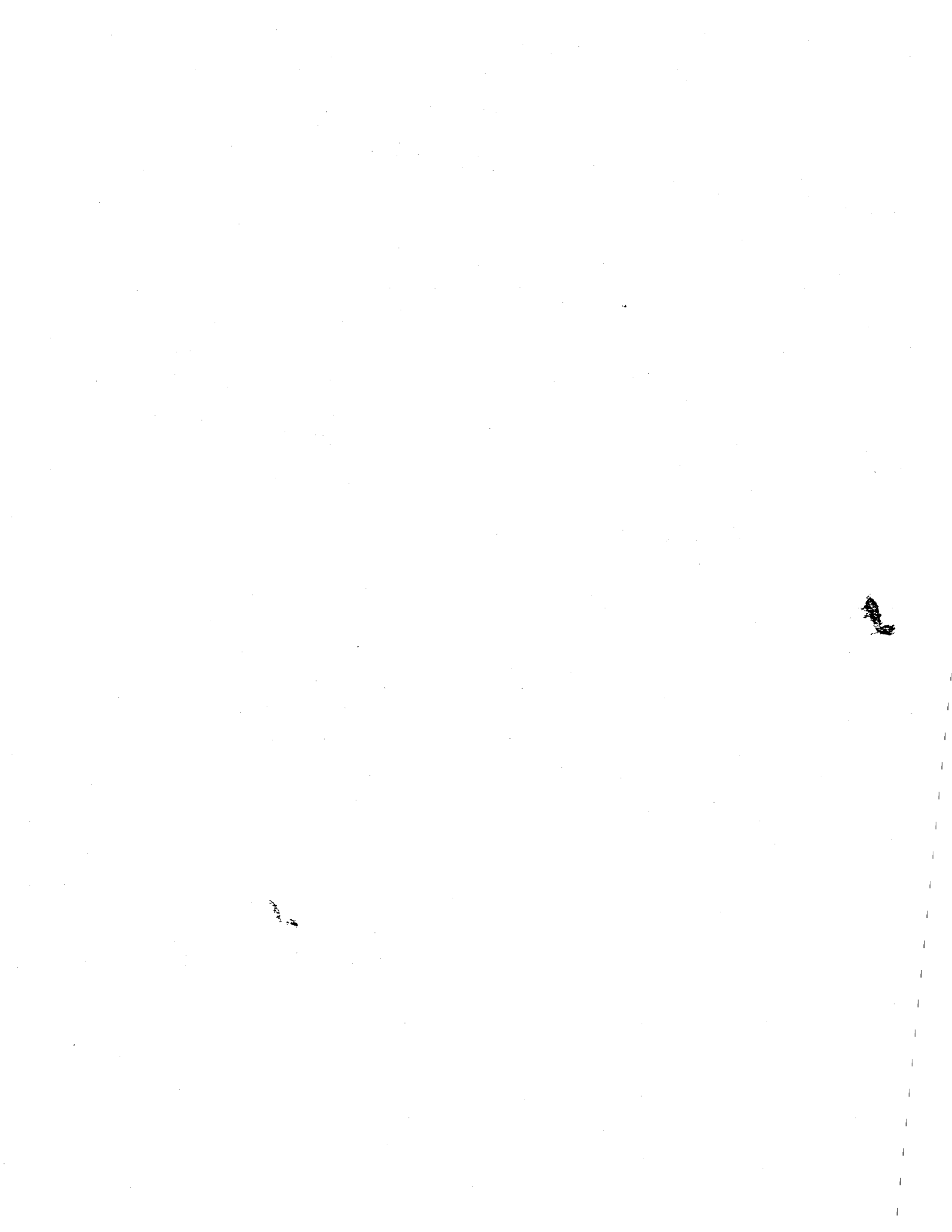
Sincerely,

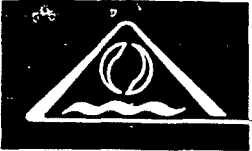


Steven W. Abel

STOEL RIVES LLP

Of Attorneys for Lone Star Northwest, Inc.





## ENVIROSCIENCE, INC.

Environmental Consulting Services 1201 S.W. 12th Ave., #410, Portland, OR 97205 Ph. 503/241-0373 Fax 503/241-0261

9 December, 1996

Jeffrey VanNatta  
Chairman  
Columbia County Planning Commission  
Columbia County Courthouse  
St. Helens, Oregon 97051

Subject: Northwest Aggregate Co. Application (PA-4-96, 5-96, 6-96):  
Wildlife Management Techniques

Dear Chairman VanNatta:

On behalf of Lone Star Northwest (Northwest Aggregate), and with regard to the above-referenced application, the following information is submitted to clarify the Wildlife Management Plan (Plan) and the use of the chemical Rejex-It.

The chemical compound Rejex-it was included within the Wildlife Management Plan as a potential wildlife deterrent because it is considered safe within the environment and would provide an additional measure for deterring birds from the project area. Rejex-It has been approved by the U.S. Food and Drug Administration (FDA) for use as a bird control agent and it's use is firmly supported by the U.S.D.A. Animal Damage Control as an effective bird deterrent technique. This compound has been formulated from food grade ingredients and is commonly used as a flavoring agent in ice cream, candy and chewing gum. Rejex-It is not a pesticide, but is regulated by EPA because it is used as a bird repellent. Rejex-It completely degrades within 3 days. Based upon our thorough review of Rejex-It, EnviroScience considers it to be safe to the environment and to the Scappoose community.

A substantial amount of false information regarding Rejex-It has been disseminated in Columbia County in recent months, resulting in public opposition to the use of Rejex-It in the Wildlife Management Plan. In response to community concerns, we are removing this compound from the Plan until it can be demonstrated to the Wildlife Review Committee that it is non-toxic to the environment and to the community. We have attached information regarding Rejex-It for your review.

A Wildlife Review Committee (Committee) was proposed by EnviroScience as part of the Wildlife Management Plan (Plan, page 23). The intention of this Committee is to provide an objective forum for the review of deterrent methods which may be used within



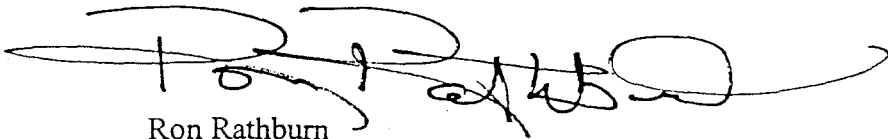


the area of the proposed mine extension. As suggested by Lowell Johnson of the Federal Aviation Administration in his October 17, 1996 letter, Columbia County will be responsible for organizing and managing this Committee. It will be the responsibility of the Committee to determine the effectiveness of selected deterrent methods and to suggest alternative techniques based upon available technology and the concerns of the community. The effectiveness of the management techniques will be measured and demonstrated to the community during mining Phases 1 through 3 (~18 years) and prior to implementation of the remaining phases of mining.

Project opponents have suggested that all of the management techniques which were addressed in the Wildlife Management Plan are required for the Plan to be operational. This is incorrect. Habitat management is always the primary method of wildlife management. Additional deterrent techniques may also be necessary, depending on the success of the habitat management techniques. Several of these are suggested in the Plan. These additional wildlife management techniques are varied and will undoubtedly change as the technology of wildlife management progresses in the future. The purpose of any successful wildlife management plan is to be as broad and flexible as necessary to prevent the use of an area by wildlife and to provide for the safety of the community.

If you have any questions regarding this letter, or any other matter regarding the wildlife issues of the Lone Star application, please contact my office.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ron Rathburn', with a large, sweeping flourish extending to the right.

Ron Rathburn  
Principal

cc: Tom Hoffman, State Director, U.S.D.A., Animal Damage Control



Received Event (Event Succeeded)

Time: 14:23  
Pages: 4  
Sender:  
Fax Number:  
Type: Fax

Date: 10/28/97  
Duration: 2 min 34 sec  
Company:  
Subject:

TEL No.

Oct 28, 97 14:32 P.02

Page Two - Port of St. Helens Minutes - March 8, 1995

Eric Dahlgren moved, Jim Semling seconded, to support the request of Mary Robinson and authorize signing the Consent of Affected Property Owners in the matter of the vacation of the alley between first and second street connecting E and F Street in Columbia City. Motion carried unanimously.

SIA - AIRPORT LAYOUT PLAN UPDATE

Shirley Parsons advised that the Airport Layout Plan prepared by W & H Pacific, is now complete and has been approved by the Federal Aviation Administration. W & H Pacific was retained in March of 1994 to prepare an update of the Airport Layout Plan (ALP) which was prepared as part of the 1991 Airport Master Plan Update. The ALP update was prompted by concerns that first, the airport did not have sufficient land identified on the existing ALP to provide for the orderly growth of the airport, and second, that there was potential for encroachment on the airport by incompatible land uses.

Shirley said that the ALP indicates additional land is important to the airport growth. Approximately 55.8 acres are recommended on the east side and 31.1 acres are recommended on the west side.

Eric Dahlgren stated that the forecasted summary looks very low and it seems that the airport is trending faster. Discussion ensued.

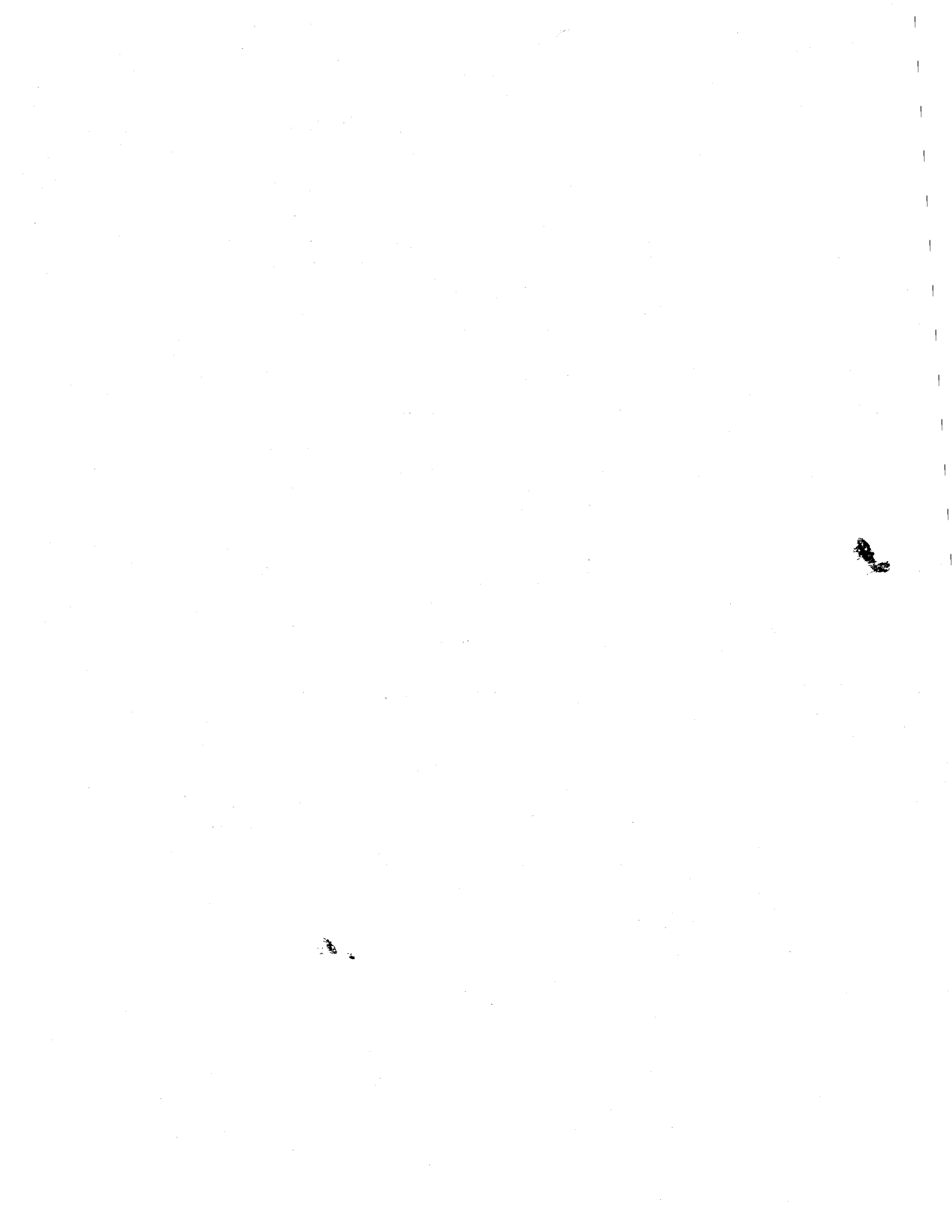
Betsy Johnson strongly urged adoption of the document. Betsy said that her only concern is the actual growth and growth potential projections are low. Betsy said this could be rectified with another update in the future. Kevin concurred and said that the updates should be done periodically due to the growth and management. Betsy agreed.

Betsy Johnson commended Shirley Parsons on a job well done.

Eric Dahlgren moved, Betsy Johnson seconded, to accept the Airport Layout Plan Update for Scappoose Industrial Airpark. Motion carried unanimously.

Shirley Parsons advised that the document will go to Columbia County for adoption. Betsy Johnson advised that she would attend the county meetings. Kevin Iverson suggested that the document go to the City of Scappoose for adoption. Betsy advised that she would attend the city meetings also.

Jim Semling asked if the additional acreage would be difficult to purchase. Betsy Johnson said that there will be a series of negotiations before the land can be acquired.



Received Event (Event Succeeded)

Time: 14:23  
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Fax Number:  
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Date: 10/28/97  
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Company:  
Subject:

TEL No.

Oct 28, 97 14:33 P.04

Page Three - Port of St. Helens Minutes - August 14, 1991

Eric Dahlgren read Resolution 91-7 in its entirety.

Tony Federici moved, Jim Semling seconded, to adopt Resolution Number 91-7, a resolution requiring Port tenants to apply for all NPDES stormwater permits, as required by the Oregon Department of Environmental Quality. Motion carried.

LEASE WITH WILLIAM LODGE - HAY STORAGE AND HARVESTING

Shirley Parsons advised that authorization to sign the lease with William Lodge for Hay Storage and Harvesting was requested. Bill Lodge will be leasing one half of an acre, harvesting hay, and storing it in the barns, on Old Portland Road. The lease is for one year with three renewal options, and is effective June 1, 1991.

Vern Harrington moved, Jim Semling seconded, to authorize signing the lease with William Lodge for hay storage and harvesting on Old Portland Road. Motion carried.

STATE MARINE BOARD FACILITY GRANT AGREEMENT

Ken Armstrong stated that the State Marine Board Facility Grant Agreement was discussed at the last Port Meeting. Authorization for the Port Manager to sign the agreement was requested.

Vern Harrington moved, Tony Federici seconded, to authorize Pete Williamson to sign the State Marine Board Facility Grant Agreement. Motion carried.

COLUMBIA COUNTY PLANNING COMMISSION'S APPROVAL - SCAPPOOSE INDUSTRIAL AIRPARK MASTER PLAN SITE DESIGN REVIEW

Shirley Parsons stated that the Columbia County Planning Commission had given approval for the Scappoose Industrial Airpark Master Plan Site Design. Tony Federici had given testimony. Shirley stated that the county staff would now be able to give approvals, unless they determined the project to be a major deviation from the Master Plan.

Tony Federici stated that staff, especially Shirley, had done very well in preparing for the Columbia County Planning Commission Hearing.

LONE STAR HEARING

Shirley Parsons advised that she had attended the Lone Star Hearing today at 10:30 a.m., and it had ended at 3:30 p.m. The hearing was closed with no decision to be made until September 6, 1991 at 10:00 a.m. No additional testimony is to be accepted.



Received Event (Event Succeeded)

Time: 14:23  
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Fax Number:  
Type: Fax

Date: 10/28/97  
Duration: 2 min 34 sec  
Company:  
Subject:

TEL No.

Oct 28, 97 14:33 P.03

Page Two - Port of St. Helens Regular Meeting - June 26, 1991

Ken stated that there had been quite a few suggestions, but everyone was positive about the project. A few of the suggestions were: Provide a park host, improvements to the road, and provide more law enforcement. The parking pit concept plan was well accepted by everyone present. Most in attendance had concerns with ATV's and off-road vehicles.

PNWA CONFERENCE REPORT

Ken Armstrong reported that he, Pete Williamson, Eric Dahlgren, Kevin Iverson, and Tony Federici had attended the Pacific Northwest Waterways Association Meeting in Couer d' Alene, Idaho, on June 18th through the 21st. The three main topics of conversation were Salmon, Wetlands, and Environmental Issues. All concurred that the meeting was very informative.

AIRPORT LAYOUT PLAN SUBMITTAL TO FAA

Shirley Parsons advised that she had distributed the airport master plan at the last meeting. Final signatures were required on the layout drawings for submission to the FAA.

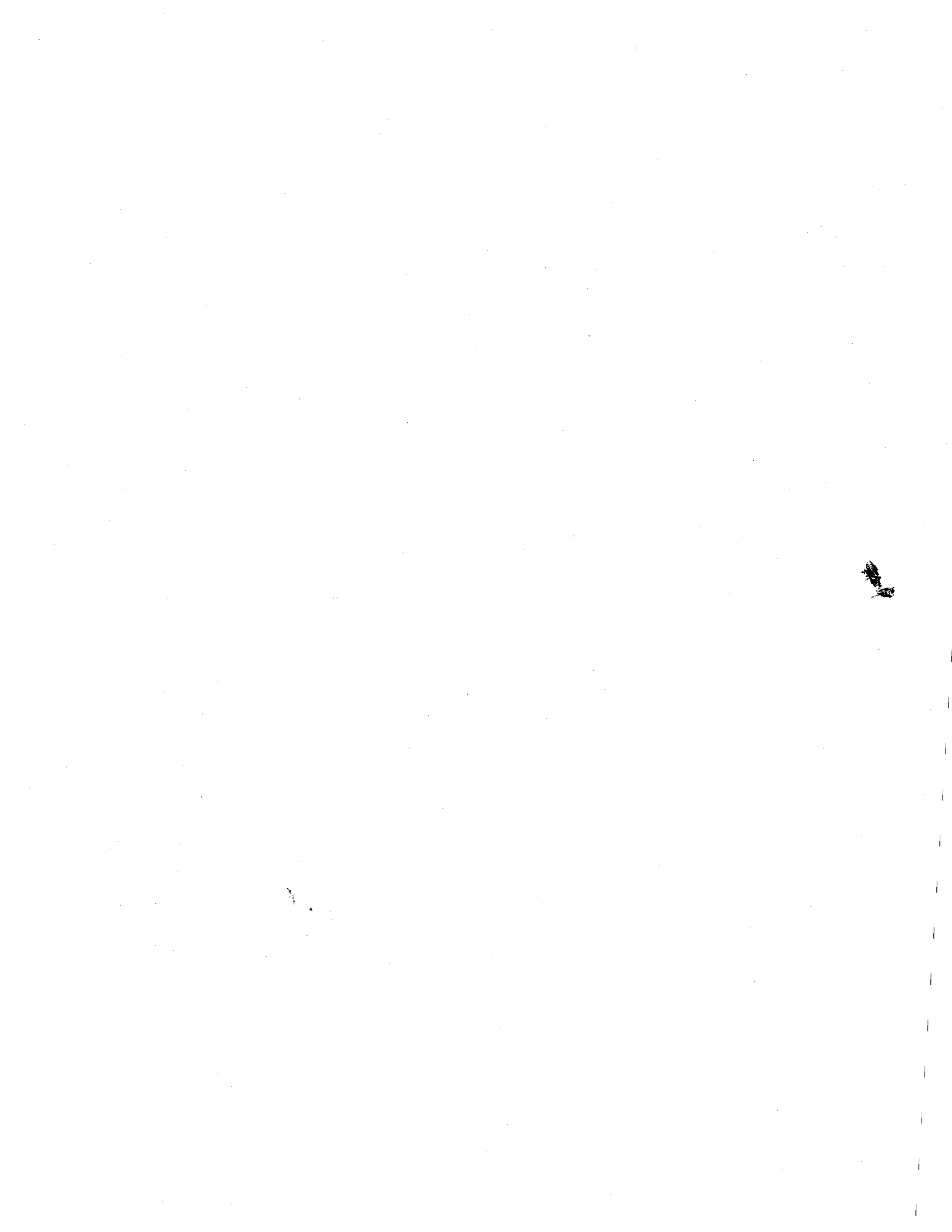
Kevin Iverson moved, Vern Harrington seconded, to authorize the president of the commission to sign the three sets of prints which include an Airport Layout Plan, a Building Area Plan, and an Airspace Plan, for final submission to FAA. Motion carried.

Shirley Parsons advised that the airport layout plan was going to be submitted to Columbia County Land Development Services for conceptual site design review approval. Submittal to Land Development Services now should enable the Port to proceed with only county planning staff approval in the future, making the process much easier. Shirley advised that she was trying to make the first meeting in August for the site design review.

Pete Williamson stated that the county's response had been very positive, and they were encouraging review of the site design in advance.

LONE STAR NORTHWEST

Tony Federici reported that the County Planning Commission had voted against the comprehensive plan amendment and zone change for Lone Star Northwest.





ce-All OK



U.S. Department  
of Transportation  
Federal Aviation  
Administration

Seattle Airports District Office  
1601 Lind Avenue, S.W.  
Renton, WA 98055-4056

August 5, 1991

Ms. Shirley J. Parsons  
Operations Manager  
Port of St. Helens  
P. O. Box 598  
St. Helens, OR 97051

Dear Ms. Parsons:

The Scappoose Industrial Airpark Airport Layout Plan (ALP), prepared by Hodges and Shutt, and bearing your signature, is approved and the master plan is accepted. A signed copy of the approved ALP is enclosed. The Exhibit A has been approved and needs to be signed by the Port official, one copy returned to this office.

This approval considers only the safety, utility, and efficiency of the airport, and it is conditioned on acceptance of the plan under local land use laws. We encourage appropriate agencies to adopt land use and height restrictive zoning based on the plan since action toward this end is a prerequisite of the Airport Improvement Program (AIP).

Approval of the plan does not indicate that the United States will participate in the cost of any development proposed. When airport construction, alteration, or deactivation is undertaken, such action requires notification and review in accordance with the provisions of Part 77 and Part 157 of the Federal Aviation Regulations.

Please attach this letter to the Airport Layout Plan and retain it in the airport files for future use under the Airport Improvement Program. We wish you great success in your plans for the development of the airport.

Sincerely,

Donna P. Taylor  
Acting Manager  
Seattle Airports District Office, SEA 640

cc:  
Paul Meyerhoff II

Enclosure

